Appendix J Comments on the Draft EIS

Table of Contents

This page intentionally left blank.

transmission capacity for its own proposed 1,000-MW natural gas-fired power plant located in Bowie, Arizona (see attached Western Electricity Coordinating Council Report on the proposed SunZia Southwest Transmission Project Regional Planning Project Report).[4] Although the original SWPG proposal mentioned providing transmission capacity for renewable energy, the fundamental reason for proposing the project was to permit transmission of power generated at the Bowie power plant both eastward to El Paso and westward to Phoenix and California. The Willow substation, portrayed throughout the scoping period as an integral part of the SunZia Project, is already a permitted part of the Bowie power plant. In addition, proposed alternative routes connect with existing substations in southwestern New Mexico and SunZia would potentially supply transmission capacity for several natural gas plants near these substations, thus enabling their future expansion. No proposed route alternatives would go through the Afton generation site and substation, which is in the same location as BLM's Afton Solar Energy Zone, despite the fact that SunZia is proposed in close proximity (20-30 miles) to this area where future industrial-scale solar energy plants will be incentivized on BLM lands. This supports the view that it is designed first and foremost to provide new transmission capacity for natural gas development, rather than renewable energy.

The DEIS is similarly biased towards emphasizing renewable energy development potential, and downplays the fossil fuel generated sources of energy that the line appears to be routed to serve. For instance, the DEIS (1-7) states: "The Project is needed to increase available transmission capacity in an electrical grid that is currently insufficient to support the development, access, and transport of additional energy-generating resources, including renewable energy, in New Mexico and Arizona." While the phrase "additional energy-generating resources" is general enough to include any type of energy source, renewable energy is called out specifically, while anticipated fossil-fuel sources are not. To be more transparent, this statement should instead read: "The Project is needed to increase available transmission capacity in an electrical grid that is currently insufficient to support the development, access, and transport of additional fossil fuel and renewable energy generating resources in New Mexico and Arizona." The DEIS goes on to say, "The Project would be open to all interconnection requests; however, it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation." This same purpose is stated later in the DEIS (4-268; 4.17.33): "The Applicant's purpose for the proposed Project is to provide access to renewable energy resources in the Southwest and to increase general reliability". The DEIS does not, however, reveal the intent of the applicant to provide access to, and increased transmission capacity for, natural gas generation. Again, the purpose in these statements is incomplete and thus misleading.

8

Furthermore, it is unclear if and when renewable energy would become a significant contributor to the mix of the power SunZia intends to deliver, and if and when the proposed segment between SunZia's eastern terminus in New Mexico and Bowie, Arizona would be built to facilitate and carry wind power. Natural gas, on the other hand, is likely to come on line quickly because of its abundance and existing infrastructure (the El Paso natural gas pipeline, whose route SunZia roughly parallels) in the region, and could readily out-compete renewable energy for capacity on the line. We are not aware of any regulations or agreements that would prevent this from occurring.

[4] Available online at: http://www.wecc.biz/committees/StandingCommittees/PCC/TSS/Shared%20Documents/Projects%20Undergoing%20Regional%20Planning%20Rating%20Review/SunZia%20Southwest%20Transmission%20Project/SunZiaRPPR_Final_051507.pdf

2100	Comment Response
8	Although FERC rules do not allow for discriminatory preference among generation subscribers to a transmission line, "it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation" as stated in the DEIS (p.1-8).

9 Lastly, there is a great deal of uncertainty whether any western market would be interested in, or even be able to buy the renewable power SunZia proposes to deliver. This fundamental aspect of the project's purpose is not examined in the DEIS – but rather generally and ambiguously referred to as "western power markets and load centers in the Desert Southwest". Page 1 of the DEIS states that "The Project would assist load-serving utilities in meeting the requirements to address energy delivery obligations to meet state renewable portfolio standards (RPS)". We have not been able to confirm that the power SunZia proposes to deliver is needed by Arizona or California to meet their current RPS goals. In fact, most California utilities have reported that they are already oversubscribed for renewable power generation[5].

10 **Recommendations:** BLM must revise the purpose and need statement for the SunZia project in the Final EIS to include SunZia's purpose to provide access to, and increased transmission capacity for, natural gas generation, including the proposed natural gas powered plant near Bowie, Arizona. The BLM must reveal to the public in the Final EIS that SunZia will not be required at any time to build the segment from central New Mexico to the Willow Substation near Bowie, Arizona that would deliver wind and solar power generated in New Mexico. The BLM must also reveal to the public in the Final EIS that the project does not have an established market to deliver renewable energy to, and must assess the willingness and ability for utilities or other "western markets" to purchase renewable energy from SunZia to meet state RPS goals (as stated in the project's purpose and need).

V. BLM's Alternatives Analysis is Not Consistent with the SunZia Project's Stated Purpose and Need and Does Not Evaluate the Full Range of Reasonable Alternatives

The deficiencies with BLM's stated purpose and need for the SunZia project render the agency's required alternatives analysis inadequate. *See* 42 U.S.C. §§ 4332(C)(iii),(E). In order to conduct a meaningful alternatives analysis, an agency must accurately identify the underlying purpose and need to which the agency is responding. *See* 40 C.F.R. § 1502.13. "The stated goal of a project necessarily dictates the range of 'reasonable' alternatives and an agency cannot define its objectives in unreasonably narrow terms." *City of Carmel-by-the-Sea v. DOT*, 123 F.3d 1142, 1155 (9th Cir. 1997). Consequently, "[l]ogic and law dictate that every time an agency prepares an environmental impact statement, it must answer three questions in order. First, what is the purpose of the proposed project (major federal action)? Second, given that purpose, what are the reasonable alternatives to the project? And third, to what extent should the agency explore each particular reasonable alternative?" *Simmons v. U.S. Army Corps of Eng'rs,* 120 F.3d 664, 668 (7th Cir. 1997).

The alternatives analysis is "the heart" of the environmental impact statement, and is intended to provide a "clear basis for choice among options by the decision maker and the public." 40 C.F.R. § 1502.14; *see also Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir. 1985) (EIS must consider "every reasonable alternative"). An agency's failure to consider a reasonable alternative is thus fatal to its NEPA analysis of a proposed action. *See id. at 1057* ("The existence of a viable but unexamined alternative renders an environmental impact statement inadequate."); Forty Most Asked

[5] See, for example: http://www.renewablesbiz.com/article/12/05/pge-says-it-will-meet-california-s-renewable-energy-goals

2100	Comment Response
9	Recent projections from the Western Electricity Coordinating Council (WECC) in a table titled, "2022 Common Case Loads and RPS Requirements in WECC Region, Modified as needed for DG Assumptions" (http://www.wecc.biz/committees/BOD/TEPPC/20120106/Lists/Minutes/1/2022%20Renewables_FINAL_20120206.xlsx last visited October 2, 2012) show that approximately 55,765 GWh of new renewable generation will need to be added to the WECC Region (i.e., California, Nevada, Arizona, and New Mexico) between 2011 and 2022 in order to meet RPS. By comparison, DEIS Table 1-1 indicates a projected need for 58,654 GWh of renewables by 2020 and 70,794 GWh by 2025. The deliverability, destination, and cost-competitiveness of the electricity carried on the proposed SunZia transmission system are subject to future negotiations. Subscription of SunZia's available transmission capacity is dependent on the customers of the transmission line (i.e., generators planning to sell energy) and their associated buyers (i.e., utilities, cooperatives, other energy consumers); therefore, it is unknown and speculative to predict which energy markets SunZia's future (but currently unidentified) customers may serve. Further, electricity on the transmission system is in a constant state of fluctuation and is dependent on a number of factors (e.g., changes in energy demand, addition of transmission, addition of generation resources, fossil generation, project closures due to economics, age and regulations etc.). Future electrical paths for electricity transported by SunZia will be determined based on available transmission capacity and contractual arrangements in place at the time SunZia becomes operational.
10	Please see responses to comment Nos. 7, 8, and 9.

Questions Concerning CEQ's NEPA Regulations, 48 Fed. Reg. 18,026 (March 16, 1981) ("In determining the scope of alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out the particular alternative. Reasonable alternatives include those that are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.").

11 The alternatives analysis contained in the DEIS does not accurately reflect SunZia's stated purpose and need and does not evaluate a sufficient range of alternatives. All of the proposed alternative routes go through Bowie, Arizona, despite the fact that delivering natural gas-generated energy from the proposed Bowie power plant is not expressly stated as a primary purpose and need of the proposed project. If the purpose of the project is to deliver wind energy from central New Mexico to markets in Arizona and further west, it is unclear why all of the route alternatives evaluated in the DEIS go so far south – all through Bowie – only to go back north again. There are other potential viable routes connecting central New Mexico to central Arizona – for instance, along the US 60 or US 70 transportation corridors – that were not evaluated in the DEIS. The related High Plains Express transmission line project feasibility study identifies the US 60 corridor as a feasible route between central New Mexico and central Arizona in the Phase 2 configuration of this proposed high voltage line. Thus, BLM has failed to consider a reasonable range of alternatives that could potentially serve the stated purpose and need of the SunZia project, in violation of NEPA.

12 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM must fully disclose the full purpose of and need for the proposed project, to include (if applicable) delivering natural gas generated electricity from plants including the 1,000 MW Bowie plant owned by SunZia's primary investor SWPG. The Final EIS must also evaluate whether utilities in western markets have the ability or intention to purchase the power SunZia would deliver. BLM should re-evaluate if this aspect of the stated need for the project is legitimate. Unless the BLM includes delivering power from the Bowie natural gas fired power plant as a specific purpose and need of the project, BLM must consider a wider range of reasonable alternatives, including feasible alternatives that do not go through Bowie, Arizona.

13

VI. Impacts to Wildlife of Conservation Concern

14 The various alternatives in the DEIS would traverse and potentially negatively impact designated critical habitat for the Southwestern willow flycatcher, Rio Grande silvery minnow, Mexican spotted owl, and the Gila chub. The project proponent should consult closely with the USFWS to determine site-specific mitigation measures for these species.

15 In section 4.6.3.1, the DEIS states: "significant impact on biological resources could result if any of the following were to occur from construction or operation of the proposed action." One of the impacts listed is, "[f]ragmentation resulting from the addition of new infrastructure to large, currently intact blocks of habitat." As such, we anticipate that habitat fragmentation associated with

2100	Comment Response
11	The range of alternatives considered included potential transmission line routes that could provide electrical interconnections with renewable energy resources located primarily within the Qualified Resource Areas (QRAs) for wind energy, in south-central New Mexico, and the QRAs for solar energy located in southwestern New Mexico (e.g., BLM designated Afton Solar Energy Zone) and southeastern Arizona. Alternatives due west from the northern portion of the study corridors in New Mexico would not be practical or feasible to achieve this objective. Please also see response to Comment No. 7.
12	Comment noted
13	Please see response to comment Nos. 7-11.
14	Section 7 consultation is ongoing between the USFWS and BLM. Note that no alternative would cross or affect designated critical habitat for the Mexican Spotted Owl.
15	The USFWS and AZGFD are cooperating agencies for the SunZia Southwest Transmission Project, and will continue to collaborate in developing measures to minimize impacts to wildlife.

15 the construction and/or improvement of roads, as well as disturbance from maintenance activities associated with SunZia and subsequent disturbance associated with increased public access, would have a significant impact on the following terrestrial special status wildlife species with relatively large, intact habitat blocks in the affected region: jaguar, ocelot, jaguarundi (if present), Mexican gray wolf, desert bighorn sheep, New Mexico meadow jumping mouse, Arizona striped whiptail, Sonoran desert tortoise, Tucson shovel-nosed snake, Northern Mexican garter snake, Northern aplomado falcon, Cactus ferruginous pygmy owl and Sprague's pipit, among others. Most, if not all of these species have been documented to be sensitive to habitat fragmentation and human disturbance. Should the project move forward to construction, the project proponent should consult with the USFWS and the AZGFD to determine site-specific and/or off-site mitigation measures to avoid, minimize and offset impacts from fragmentation and disturbance to these species. A crucial

16 mitigation measure that should be implemented globally is to tightly restrict vehicular access to transmission line access roads, so as to avoid an increase in human-related impacts that are facilitated by access, such as direct mortality from vehicle collisions and poaching, disturbances that affect habitat quality such as noise, pollution, accelerated erosion and the accidental introduction and spread of non-native species. Additional information about some of these species follows.

Tucson Shovel-Nosed Snake *(Chionactis occipitalis klauberi)*: This small, 10" - 17" shovel-nosed snake is primarily restricted to sand dunes and sandy-silty flats on creosote-mesquite floodplain valley floors, but they can also be found in washes and on rocky hillsides with pockets of sand. The geographic range of this subspecies is currently confined to the most arid areas of Pima and Pinal counties. Tucson shovel-nosed snakes burrow as well as crawl, and are adapted for "swimming" rapidly through loose sand. The species is nocturnal/crepuscular, typically staying underground during the heat of the day and foraging for insects above ground at night. Currently an ESA candidate species, Tucson shovel-nosed snakes were found to be "warranted but precluded" in March 2010; the finding states that they are threatened throughout their entire range by habitat loss and fragmentation due to development, roads, potential solar power facilities, agriculture, wildfires, and lack of adequate management and regulation. The USFWS is required to submit a Proposed Rule or a not-warranted finding on this candidate species no later than the end of fiscal year 2014. While the DEIS identifies the potential for construction related activity to cause direct mortality, there is no discussion of impacts related to fragmentation caused by road construction.

17 **Recommendation:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following

18 recommendations. The Final EIS must analyze the impacts on the Tucson shovel-nosed snake of road construction and associated habitat fragmentation resulting from the SunZia project. In addition, the Final EIS must adequately analyze potential cumulative effects of energy development that would be enabled by the construction of SunZia. SunZia and BLM should consult with the USFWS regarding conservation measures for this imperiled species.

Cactus ferruginous pygmy owl (*Glaucidium brasilianum cactorum*): This species was formerly listed as endangered and is still extremely imperiled in the U.S. The pygmy owl is one of Arizona's rarest species, and its conservation was the impetus for the Sonoran Desert Conservation Plan. While the

2100	Comment Response
16	Measures to minimize unauthorized, recreational traffic on new access roads are described in the standard and selective mitigation measures for the Project. Implementation of these measures would be determined in the final POD, and would be at the discretion of the landowner or applicable agency.
17	Comment noted
18	The DEIS (Section 4.6.4.5) notes that roads or any other form of ground disturbance may negatively affect the Tucson Shovel-nosed Snake, directly or indirectly. No solar energy developments identified as reasonably foreseeable future actions in the cumulative effects analysis area would be sited within suitable habitat for the species (Section 4.17). The Project would not facilitate the development of renewable energy generation within the range of the species, as the western terminus (planned Pinal Central Substation) is located at the eastern edge of the species' range. Energy transmitted by the Project would move east-to-west, and new facilities in Pima, Pinal, and Maricopa counties in Arizona would not interconnect to the Project.

species is not federally listed, it is a species of great concern to the conservation community, a BLM special status species, and an Arizona Wildlife Species of Special Concern. It is particularly imperiled in the northern portion of its range, which is the area overlapping southern Arizona, and is threatened largely by riparian area habitat loss and the spread of invasive species such as buffelgrass, which cause unnaturally hot fires to burn that can destroy saguaros, one of the primary elements used by pygmy owls for nesting. Destruction of saguaros, especially those containing suitable nesting cavities, should be avoided.

19 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Avoidance, salvage, and relocation of saguaros of transplantable size is a good first step towards reducing impacts to pygmy owl habitat. Avoidance of mesquite bosque habitat is also crucial. SunZia and BLM should consult with the USFWS and the AZGFD regarding site-specific conservation measures for this species. In addition, the Final EIS must adequately analyze potential cumulative effects upon the owl of energy development that would be enabled by the construction of SunZia.

20

Lesser Long-nosed Bat *(Leptonycteris curasoae yerbabuenae)*: The endangered lesser long-nosed bat is one of the three North American nectar-feeding bat species that undergoes long distance migrations. To survive these migrations, the bats must time their travel to coincide with the flowering or fruiting activity of their food plants. The floral resources they depend upon have been threatened by wildland habitat conversion and fragmentation, and maternity roost sites (located in caves and abandoned mines) are sensitive to human disturbance. The SunZia study corridor is located at the northern limits of the range of the lesser long-nosed bat, and as noted in the DEIS, two know roosts are within 4 miles of the project centerline. There is also the possibility that additional, undocumented roosts could also exist within the study area, as it contains concentrations of agaves that could be used as food sources by this species. The lesser long-nosed bat is known to be capable of traveling long distances, in the range of 30 to 60 miles (USFWS 1994), in a single night to forage. The proximity of the study corridor to other known roosts makes it likely that these populations forage within the study corridor occasionally.

21 **Recommendations**: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for this endangered species. For agave and saguaro that would need to be removed, not only should these plants be transplanted nearby where they have been removed, but additional plants should be planted for mitigation (and to account for possible unsuccessful transplants) at a 3:1 ratio. In addition, the Final EIS must adequately analyze potential cumulative effects of energy development that would be enabled by the construction of SunZia.

22

Gila chub (*Gila intermedia*): This endangered minnow species is primarily threatened by habitat degradation on the banks of the streams that they inhabit and from upstream runoff in their

2100	Comment Response
19	Comment noted
20	Saguaros would be salvaged and transplanted, in accordance with state law and as noted in the standard mitigation measures developed for the Project. Mesquite bosque may be affected by the Project at the crossing of the San Pedro River, although the BLM preferred alternative crossing location was selected to minimize effects to any riparian habitat, including mesquite bosque. At this time, no reasonably foreseeable future renewable energy developments have been identified within suitable habitat for the species. See the response to comment 18 regarding future energy development in central Arizona.
21	Comment noted
22	Salvage of saguaros and agaves would be implemented as a standard mitigation measure. Additional measures to reduce the impacts to nectar-feeding bats, including the ratio of supplemental planting, would be developed in coordination with the USFWS during Section 7 consultation. Solar facilities are typically located in level valley bottoms that do not often support agaves or saguaros. Development of wind energy generating facilities in eastern Arizona and western New Mexico could result in cumulative impacts to agaves used by nectar-feeding bats. However, no such actions are identified as reasonably foreseeable within habitat that would support agaves. See comment 18 regarding energy development in central Arizona.

watersheds. Limiting watershed impacts (erosion, sedimentation, etc.) from construction and preserving riparian corridors will be essential in avoiding impacts upon this species.

23 **Recommendation:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for the Gila chub. It is crucial that measures to avoid, minimize and control erosion caused by ground disturbance are implemented and monitored for effectiveness.

24

Southwestern willow flycatcher (*Empidonax traillii extimus*): The endangered southwestern willow flycatcher is found at various locations in the project area, with designated critical habitat along numerous riparian corridors (the species' breeding habitat) in the region. They are threatened by habitat loss, particularly in these riparian areas.

25 **Recommendation:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for the Southwestern willow flycatcher. Avoidance, minimization, and mitigation measures consistent with the recovery plan (and implemented in consultation with USFWS) may be warranted for any instances in which the transmission corridor crosses a floodplain or other riparian habitat area. Engineering of structures to span over flycatcher habitat is the preferred avoidance method, and vegetation preservation and/or restoration actions should be implemented where SunZia interacts with flycatcher habitat.

26

Mexican spotted owl (*Strix occidentalis lucida*): This species is listed as threatened. Threats include loss to old growth forests, its preferred habitat, disturbance and climate change. Locating the transmission corridor away from forested areas and consulting with USFWS to ensure consistency with the species' recovery plan will be essential in corridor planning. The DEIS acknowledges that this species may occur in the project study area, in the Galiuro Mountains/Aravaipa Canyon, Rincon Mountains, and in the southeastern portion of the Magdalena Mountains. We question if 0.5 miles is an appropriate distance for determining impacts to this species, as the project area may contain foraging habitat. Avoidance, minimization, and mitigation measures consistent with the recovery plan (and implemented in consultation with USFWS) may be warranted for any instances in which the transmission corridor crosses constituent elements of designated critical habitat. The DEIS indicates no mitigation measures for this species.

27

28 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for the Mexican spotted owl. If the project is determined to have key constituent elements or foraging habitat for the Mexican spotted owl, mitigation measures should be identified and implemented.

29

2100	Comment Response
23	Comment noted
24	Section 7 consultation is ongoing with USFWS for the BLM preferred alternative, which does not contain habitat for the Gila Chub. If the BLM preferred alternative is modified or changed in a way that may affect the Gila Chub, consultation with the USFWS would be reinitiated.
25	Comment noted
26	Section 7 consultation is ongoing with USFWS for the BLM preferred alternative, and addresses impacts to the Southwestern Willow Flycatcher, its recovery, and critical habitat. As noted in the DEIS, no suitable nesting habitat for the Southwestern Willow Flycatcher is present on the BLM preferred alternative, although designated critical habitat is present on the Rio Grande and proposed critical habitat is present on the San Pedro River.
27	The DEIS (Section 4.6.4.5) notes that the Mexican Spotted Owl may be present within the study corridor. However, no designated critical habitat is crossed by any alternative, and no ponderosa pine woodlands or narrow canyons with high cliffs are present on or would be affected by any alternatives.
28	Comment noted
29	See response to comment 27.

White-sided jackrabbit (*Lepus callotis*): This state-listed endangered species is endemic in the United States to a very small range of high-quality grasslands in southwestern New Mexico's Hidalgo County. Due to its habitat requirements for intact grasslands, it is an important indicator species for the health of southwestern desert grasslands. While it was found not warranted for ESA listing in 2010, it is nonetheless a very rare species and is heavily dependent upon grassland conservation and restoration measures for its population survival. The DEIS does not analyze impacts to this species. Links B150a, B140 and B112 are located within the historic range of this species.

30 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if
31 BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the NMGFD to determine what conservation measures may be appropriate for this species.

Sandhill cranes (*Grus canadensis*): Sandhill cranes are primarily birds of open fresh water wetlands, but the different subspecies utilize habitats that range from bogs, sedge meadows, and fens to open grasslands, pine savannas, and cultivated lands. Sandhill cranes occur at their highest breeding density in habitats that contain open sedge meadows in wetlands that are adjacent to short vegetation in uplands.[6] A portion of three distinct populations of sandhill cranes winters in Arizona. Cranes from both the Rocky Mountain (RM) and mid-Continent (M-C) populations winter in the Sulphur Springs and Gila River valleys of southeastern Arizona.[7]

32 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Care should be taken in project planning to analyze and avoid migratory flyways and important habitats for this species in order to prevent collisions and population-level impacts. In particular, areas of concern for Sandhill cranes in the project area is the Rio Grande River corridor, as well as Crane Lake, located in the northern portion of the Sulphur Springs Valley in southeastern Arizona, which supports the second largest over-wintering concentration of this migratory bird. Both of these areas are of high ecological and economic importance. The USFWS estimates 174 million birds die each year as a result of colliding with transmission lines. We recommend avoiding
33 spanning bodies of water or placing lines between heavily-used bodies of water and landscape contexts in which the overhead static wire is obscured or hard to see. Although a limited number studies have been conducted on the use of markers or "bird diverters" to reduce collisions, BLM should confer with the USFWS to determine and implement best practices for reducing transmission line and guy wire collisions with sandhill cranes and all bird species. We encourage SunZia to develop an Avian Protection Plan (APP) and follow best practices laid out by USFWS,[8] NMDGF,[9] and the Avian Power Line Interaction Committee (APLIC).[10]

[6] International Crane Foundation species account (see: http://www.savingcranes.org/sandhill-crane.html)
[7] Arizona Game and Fish Department species account (see: http://www.azgfd.gov/h_f/game_crane.shtml)
[8] APLIC and FWS 2005, Avian Protection Plan (APP) Guidelines.
[9] New Mexico Department of Game and Fish 2003, "Power line Project Guidelines" (http://wildlife.state.nm.us/conservation/habitat_handbook/documents/PowerlineProjectGuidelines.pdf).
[10] APLIC 2006.

2100	Comment Response
30	Comment noted
31	The historical range of the species, as presented in the USFWS 2010 finding that listing of the White-sided Jackrabbit was not warranted, does not include any portion of the Project area. The historical range included the southern Playas and Animas valleys in New Mexico, approximately 50 miles to the south of the Project area. The White-sided Jackrabbit is listed as sensitive by the BLM NM State Office, and all applicable special-status species policies would be followed regarding the species.
32	Comment noted
33	An Avian Protection Plan will be developed for the Project, and will include detailed information on the selection and placement of bird diverters and other measures to increase visibility of overhead groundwires, guywires, and other features of the Project. The APLIC guidelines for reducing collision risk have been updated and are in press, to be released in 2012. These guidelines will present the best available information to be used in developing the Avian Protection Plan.

Snow geese (*Chen caerulescens*): At various times of the year, the snow goose can be found in almost every state or province of North America. Migrating snow geese concentrate in large numbers at many sites along traditional flyways across the continent. Always near water, snow geese breed on open, coastal tundra dominated by grasses and sedges. During migration they use both fresh and saltwater marshes, ponds, lakes, streams, meadows, and agricultural lands. Wintering snow geese inhabit a variety of marine and freshwater wetlands, including grassy marshes, wet fields, rice plantations, farm fields with waste grain, and open pastures.[11]

34 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Care should be taken in project planning to analyze and avoid migratory flyways and important habitats for this species in order to prevent collisions and population-level impacts.

35 Bird diverters should be implemented on line segments that intersect flyways, so as to make the wires more visible and thus to reduce direct mortality due to collisions. We recommend avoiding spanning bodies of water or placing lines between heavily-used bodies of water and landscape contexts in which the overhead static wire is obscured or hard to see. BLM should confer with the USFWS to determine and implement best practices for reducing transmission line and guy wire collisions with snow geese and all bird species.

Mexican gray wolf (*Canis lupus baileyi*): The Mexican gray wolf is a subspecies of the gray wolf, and is the most endangered type of wolf in the world. After being extirpated in the United States and with only a few animals remaining in Mexico, Mexican wolves were bred in captivity and reintroduced to the wild in Arizona beginning in 1998. The goal of the reintroduction program, which is only a first step toward full recovery, was to restore at least 100 wolves to the wild by 2006; unfortunately, at the end of 2011 there were only 58. While there are not currently wolves occupying the SunZia project area, the area does contain suitable habitat for this species. Much of the corridor borders the southern boundary of the 10j reintroduction area for the species, and so may particularly affect dispersal and genetic exchange between populations now being established in Mexico and those in the US. The entire SunZia planning area is within the Sky Islands region, which the recovery plan now underway may identify as a recovery or corridor area. North/south habitat linkages for this species are particularly important to protect. New access roads associated with SunZia could provide new access into wolf habitat. The level of vehicular access is directly related to the relative level of habitat security for this species.

36 The DEIS (4-71) states: "the potential for the species occurring at present or in the future within the study corridor or being affected by any phase of Project development or operation is very low." We find no basis for this assumption, and in fact, Mexican wolves have ranged across various portions of the the SunZia project planning area in search of new territory. Such occurrences will likely occur more often as the population grows and disperses. The 5-Year Review of the Mexican gray wolf recovery program found that movement distances for lone wolves averaged 87 ± 10 km (54 ± 6 mi).[12] In addition, newly introduced Mexican wolves in northern Sonora, Mexico, could also range into the SunZia project planning area.

[11] Audubon species account (see: http://www.audubon.org/species/snogoo)
[12] See: https://www.fws.gov/southwest/es/mexicanwolf/pdf/MW5YRTechnicalComponent20051231Final.pdf

2100	Comment Response
34	Comment noted
35	See response to comment 33.
36	The FEIS (Section 3.6.6.1) has been updated to reflect the introduction of Mexican Gray Wolves into northern Mexico. Policies for managing the introduced population in Arizona and New Mexico do not provide for dispersal and residency outside the Blue Range Wolf Recovery Area. Under current policies, any Mexican Gray Wolf found in the Project area would likely be captured and returned to the Blue Range Wolf Recovery Area or to captivity. If those policies are modified, conference with the USFWS would be reinitiated as warranted.

37 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must fully analyze the potential effects of creating new vehicular access into occupied and potential Mexican wolf habitat. SunZia and BLM should consult with the USFWS regarding conservation measures for this species, and with an eye to policy changes anticipated in the new recovery plan and associated rulemaking – as the recovery plan will likely be finalized prior to the construction of SunZia.

38

Ocelot (*Leopardus pardalis*): A new recovery plan is being developed by the USFWS for this species. According to the draft recovery plan for the ocelot, little is known about the abundance and distribution of the Sonoran population of ocelot.[13] Despite the fact that ocelots are notoriously difficult to detect, particularly in low densities such as they probably exist in their northern range, multiple verified ocelot sightings in southeastern Arizona have occurred in the past three years.

39 The DEIS (4-71) states, "The recent sightings could indicate an expansion of the species' range northward, but more likely represent vagrant animals from northern Mexico. Movements of ocelots in southern Arizona are likely to occur primarily along riparian corridors where elongated ribbons of dense vegetation provide cover for the animals' movements." Given that little is known about the ocelot's abundance and distribution in southeastern Arizona, these statements regarding the ocelot are not grounded in science or fact, although riparian areas and those with dense shrub cover are indeed likely to be among habitat types preferred by ocelot in their northern range.[14] Until more field research is conducted to study and determine ocelot habitat selection in this northern portion of its range, all vegetation types with dense cover and an adequate prey base should be considered potential ocelot habitat.

40 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS and AZGFD regarding conservation measures for this species, and mitigate consistent with the current draft recovery plan, as the recovery plan will likely be finalized prior to the construction of SunZia.

41

Aplomado falcon (*Falco femoralis*): Listed as endangered in southern and western Texas, this species exists as an experimental population in New Mexico. Falcons are threatened by habitat destruction and disturbance at nest sites, and may experience direct mortality due to collisions with construction cranes, trucks, or wires and powerlines. Noise and human activity may displace the birds, and removal of nesting sites impacts their reproductive activities. Both of the primary new build

[13] See: http://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/Ocelot/Draft_Ocelot_Recovery_Plan-First_Revision.pdf

[14] Lopez Gonzalez, C., D.E. Brown and J.P. Gall0-Reynoso, 2003. The ocelot Leopardus pardalis In north-western Mexico: ecology, distribution and conservation status. Oryx Vol 37 No 3 July 2003.

2100	Comment Response
37	Comment noted
38	No new road access would be created in occupied habitat for the Mexican Gray Wolf, or in any areas considered potential habitat under current policies. See response to comment 36.
39	The DEIS (Section 3.6.6.1) notes that Ocelots appear to have moved through the Project area recently, and are occasionally sighted in southern Arizona. Ocelots are known to prefer dense shrub cover, which is primarily found in riparian corridors in the Project area. No areas outside riparian corridors appear to have habitat structure similar to known Ocelot habitat, and impacts to the species are not expected to occur outside riparian areas.
40	Comment noted
41	Impacts to the Ocelot are being addressed during Section 7 consultation with the USFWS.

alternative routes in southern New Mexico would cross suitable habitat for this species. Transmission, planning, and construction of the proposed line should be consistent with the species reintroduction plan and its objectives to avoid negative impacts to the falcons. In addition, the Final EIS must adequately analyze potential cumulative effects of energy development that would be enabled by the construction of SunZia. For example, recent wind development (Macho Springs) in the Nutt Grasslands area, the same area where SunZia is proposed to be routed, has led to the decision to not reintroduce these endangered birds into highly suitable habitat in the Nutt Grasslands due to potential conflicts with wind turbines. We anticipate SunZia will enable future wind, solar and natural gas development to occur that could not only directly impact suitable habitat and the likelihood of successful natural dispersal and establishment of new populations, but could also preclude or dissuade reintroduction efforts in suitable habitats. Therefore, the impact to Aplomado falcon recovery and recovery efforts must be analyzed. 42

The DEIS (4-73) states, "Large areas of available but unoccupied habitat, coupled with the naturally low densities of Aplomado Falcons, would preclude significant negative effects of Project construction related to habitat loss." While it is true there are large areas of unoccupied and suitable habitat for the falcon in the project study area, we do not see any basis for the assumption that naturally low densities of this species would preclude significant negative effects from occurring. Effects to this species will depend largely upon the final route that is selected and that route's proximity to occupied habitat and nest locations. Modifying or creating hazards in suitable and unoccupied habitat could preclude birds' dispersing there or being reintroduced there, which could have significant negative impacts on their ability to be recovered. 43

44 **Recommendation:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for this species, and conduct mitigation consistent with the current recovery plan. The Final EIS must adequately analyze direct, indirect and cumulative effects of the selected SunZia route to the Aplomado falcon. Specifically, BLM must analyze the impacts of SunZia, and the foreseeable energy development it would enable, upon Aplomado falcon habitat suitability, recovery and recovery efforts. 45

Jaguar (*Panthera onca*): "Jaguars in the United States are likely dispersing males from breeding populations in northern Mexico. Movement corridors are important to maintain; however, human developments may block access to corridors or fragment contiguous habitats needed to sustain a home range. Fences and highways may be particularly damaging for movement corridors."[15] The United States portion of the jaguar's range coincides with the proposed transmission route in Cochise, Pima, Santa Cruz, and Hidalgo counties,[16] making it essential that SunZia planning limit habitat fragmentation and preserve movement corridors for this species. Areas with moderate to 46

[15] Fish and Wildlife Service (2012). ECOS Species Profile for jaguar (Panthera onca). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A040. Accessed May 29, 2012.
[16] Hatten et al. 2003. Characterizing and Mapping Potential Jaguar Habitat in Arizona. Arizona Game and Fish Department Technical Report 203, Nongame and Endangered Wildlife Program. (see: http://www.azgfd.gov/pdfs/w_c/jaguar/characterizing_mapping.pdf)

2100	Comment Response
42	The DEIS (Section 4.17) notes identified renewable energy facilities that may affect the Aplomado Falcon in the discussion on cumulative effects.
43	The DEIS (Section 4.6.4.5) specifies "effects related to habitat loss" in the referenced sentence, and does not discount other potential effects. However, no information is available that would indicate the presence of a transmission line would affect future management decisions for the species or preclude areas from being selected as reintroduction sites.
44	Comment noted
45	See comment 42. Section 7 consultation is ongoing with the USFWS, and will address potential impacts to the Aplomado Falcon.
46	Although the DEIS (Section 3.6.6.1) described the range of habitat Jaguars may use in the United States, the FEIS has been modified to note that much of southern and central Arizona is within the historic range of the Jaguar. The DEIS also discussed modeling that indicated suitable habitat remains in Arizona and New Mexico. However, areas north of Interstate 10 were not proposed as critical habitat by the USFWS, as those areas were determined to be unoccupied at the time of listing or insufficiently connected to Mexico to be essential to the conservation and recovery of the species. The DEIS does not discount the possibility that individual Jaguars may disperse across Interstate 10 in the future, but the long-term absence of the species and the substantial barrier formed by Interstate 10 must also be considered as the current conditions and best available information.

2100

high quality jaguar habitat should be given particular consideration, including the area in and surrounding Steins Pass at the Arizona/New Mexico border, the area within approximately 25 miles east of Willcox, Arizona, and between Tucson, Arizona in the west and State Highway 191 in the east. North/south habitat linkages for this species are particularly important to protect, and tend to coincide with areas with riparian corridors, lands with moderate to high vegetation cover and rough terrain. 46

The DEIS states: "While the potential for jaguars occurring within the Project area is very low, disturbance associated with construction could result in temporary avoidance of those areas by any jaguars using the area." We find no basis for the assumption that the potential for jaguars occurring within the project area is "very low". Comprehensive field surveys to detect and monitor this elusive species have not been conducted to date, and their habitat selection in the northern portion of their range is poorly understood. Therefore, instead of dismissing potential effects, the DEIS should analyze the impacts SunZia could have upon vegetation associations jaguars have been known to utilize, habitat connectivity for this species, and increased human presence and disturbance in areas containing what is thought to be suitable habitat. 47

48 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must analyze the impacts SunZia would have on vegetation associations, habitat connectivity and habitat suitability for the jaguar. Many mitigation measures that would apply to ocelot apply to the jaguar as well. SunZia and BLM should consult with the USFWS and AZGFD regarding conservation measures for this species, and mitigate consistent with the current draft recovery plan, as the recovery plan will likely be finalized prior to the construction of SunZia. 49

Sonoran desert tortoise (*Gopherus agassizii*): This ESA candidate species is found in the Sonoran desert of Arizona. Core, higher density populations of this species tend to be "island like" and associated with steeper terrain and aspects, making the species very vulnerable to connectivity disruptions especially as associated with the development of roads and other infrastructure. Also, ravens use transmission lines as a means to scout out and prey upon young tortoises. Therefore, mitigation measures that are specific to habitat fragmentation, direct mortality from collisions with vehicles, and raven predation should be identified, developed and implemented. 50

51 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS should more adequately analyze impacts from direct mortality due to construction and vehicular traffic, as well as longer-term impacts from habitat fragmentation and the potential introduction of non-native species. SunZia and BLM should consult with the USFWS and AZGFD regarding conservation measures for this species. 52

2100	Comment Response
47	The DEIS (Section 4.6.4.5) does not propose species-specific mitigation for the Jaguar, as no information indicates that the species would be present to be affected. However, mitigation measures that would be implemented to minimize impacts to other species would accomplish objectives described in the comment. Disturbance to mesquite bosque at the San Pedro River crossing would be minimized by placing the structures on elevated terrain, to achieve conductor clearance while minimizing vegetation management needs. Upland vegetation within the other areas noted in the comment (Peloncillo, Rincon, and Winchester mountains) is typically desertscrub with some areas of low-density juniper-oak woodland, where vegetation management be needed at a relatively low intensity and frequency. The Project would be adjacent to two existing transmission lines in this area. No fences are anticipated to be added in these areas. Mechanisms presented in the POD would be in place, through agency coordination and contractor resource sensitivity training, to ensure that construction and maintenance activities would be modified or temporarily halted if a Jaguar is detected in the Project area at any time.
48	Comment noted
49	The BLM has initiated consultation with USFWS under Section 7 of the ESA. At present, the 2012 critical habitat proposal (USFWS 2012) and the Recovery Outline for the Jaguar (Jaguar Recovery Team and USFWS 2012) are the most recent documents regarding recovery planning. However, the pending draft Recovery Plan would be considered during Section 7 consultation if released during that timeframe. If Jaguars are found to occur north of Interstate 10 in the future, consultation with the USFWS would be reinitiated. The Recovery Outline for the Jaguar identifies much of southern Arizona south of Interstate 10 as a "secondary area" for recovery planning, and the remainder of Arizona (including the Project area) as a "peripheral area". Peripheral areas are defined as follows: • Areas that contain few verified historical or recent records of Jaguar and records are sporadic. • Quality and quantity of habitat are marginal for supporting adequate Jaguar populations. Habitat may occur in small patches and is not well-connected to larger patches of high-quality habitat. • May sustain short-term survival of dispersing Jaguars and temporary residents. As discussed in the DEIS (Section 3.6.6.1) and responses to comment Nos. 46 and 47, loss of connectivity due to Interstate 10 is likely to be limiting to a much greater degree than habitat suitability within the Project area.
50	Raven predation has not been demonstrated to present a threat to Sonoran Desert Tortoises, due to the high rock and shrub cover present in suitable habitat. This is noted in the USFWS 12-month finding that listing of the Sonoran Desert Tortoise was warranted but precluded, as supported by published literature. Natural perches and nest sites are readily available in Sonoran Desert Tortoise habitat, limiting the potential for a transmission line to artificially support increased raven densities. Best management practices and standard mitigation measures would dictate that contractors maintain a clean work area during construction and maintenance, preventing food waste and trash from attracting high densities of ravens and other predators to the Project area.

Golden eagle (*Aquila chrysaetos*): This wide-ranging and broadly-distributed species, protected by the Bald and Golden Eagle Protection Act (BGEPA), is likely to be impacted by transmission development to some degree, but since our knowledge of their distribution and habitat use is so vague, the impacts of potential development in any particular area cannot be quantified with any accuracy and precision. This does not mean that population-level impacts do not need to be examined, but it does make filling information gaps for this species crucial, both at the local scale through sufficient study of the proposed project area - as well as the landscape scale through population level surveys and monitoring.

53 54

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM and SunZia should consult with USFWS regarding what surveys should be conducted to predict potential eagle mortality, and if warranted, consider applying for an eagle incidental take permit. Although fatalities most often occur at smaller (≤ 69 kV) distribution lines, electrocution and collision are known causes of mortality for the golden eagle. The design and layout of SunZia's towers, transmission lines and guy wires should minimize risk to eagles. We recommend SunZia develop an Avian Protection Plan (APP) and follow best practices laid out by USFWS,[17] NMDGF,[18] and the Avian Power Line Interaction Committee (APLIC).[19]

American pronghorn (*Antilocapra americana*): The management of pronghorn and their habitat represent an important conservation issue for North American grasslands, as pronghorn are an indicator of grassland ecosystem health, and are valued as a wide-ranging, native game animal. Because pronghorn range widely to access the most succulent forage available at different locations at various times of the year, and often return to specific fawning grounds, they are a landscape-connectivity dependent species.[20,21] This means that their life history requirements necessitate an ability to move freely between resource patches, which are often spread out across large landscapes. Pronghorn have declined in Arizona over the past two decades. In 1987, the statewide population of pronghorn was estimated at nearly 12,000, but by the year 2000 the population estimate had declined to less than 8,000.[22] Grassland habitats in Arizona and New Mexico continue to be subjected to extended drought, habitat conversion and fragmentation from urban and agricultural development, and woodland encroachment. Therefore, the conservation and restoration of remaining viable pronghorn summer and winter ranges, as well as seasonal migration corridors, is all the more important if pronghorn populations are to recover.

---

[17] APLIC and FWS 2005, Avian Protection Plan (APP) Guidelines.
[18] New Mexico Department of Game and Fish 2003, "Power line Project Guidelines" (http://wildlife.state.nm.us/conservation/habitat_handbook/documents/PowerlineProjectGuidelines.pdf).
[19] APLIC 2006.
[20] Friederici, P. editor. 2003. Ecological Restoration of Southwestern Ponderosa pine Forests. Island Press, Washington, D.C., USA, 651 pp.
[21] van Riper and Ockenfels 1998 Yoakum, J.D. 2002. An Assessment of Pronghorn Populations and Habitat Status for Anderson Mesa, Arizona: 2001-2002. Prepared for the Arizona Wildlife Federation. 130 pp.
[22] Arizona Game and Fish Department. 2001. Wildlife 2006: The Arizona Game and Fish Department's Wildlife Management Program Strategic Plan for the Years 2001-2006.

2100	Comment Response
52	The DEIS does not propose species-specific mitigation for the Jaguar, as no information indicates that the species would be present to be affected. However, mitigation measures that would be implemented to minimize impacts to other species would accomplish objectives described in the comment. Disturbance to mesquite bosque at the San Pedro River crossing would be minimized by placing the structures on elevated terrain, to achieve conductor clearance while minimizing vegetation management needs. Upland vegetation within the other areas noted in the comment (Peloncillo, Rincon, and Winchester mountains) is typically desertscrub with some areas of low-density juniper-oak woodland, where vegetation management be needed at a relatively low intensity and frequency. The Project would be adjacent to two existing transmission lines in this area. No fences are anticipated to be added in these areas. Mechanisms presented in the POD would be in place, through agency coordination and contractor resource sensitivity training, to ensure that construction and maintenance activities would be modified or temporarily halted if a Jaguar is detected in the Project area at any time.
53	Comment noted
54	APLIC standards for electrocution risk will be followed during construction. As noted in the comment, the risk of electrocution is low on high-voltage transmission systems. APLIC's 2012 guidelines on reducing collision risk are in press, but are anticipated to be published prior to development of the Avian Protection Plan. The USFWS and other applicable agencies will be consulted regarding general measures and site-specific information to avoid impacts to Golden Eagles.

55 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS should adequately assess SunZia's effects on pronghorn. The
56 clearance of shrubs in shrub-invaded grasslands associated with this project could actually benefit pronghorn in some areas. The Final EIS should also more comprehensively assess the potential impacts upon pronghorn and pronghorn habitat quality of road construction (i.e. habitat fragmentation), vehicular traffic and associated disturbance.

Chihuahua scurfpea *(Pediomelum pentaphyllum)*: This very rare plant is currently being considered for listing under the Endangered Species Act. Its United States habitat occurs largely on BLM and New Mexico state lands, with several hundred known individuals of the species in New Mexico and a few dozen in Arizona. Listed as endangered by the state of New Mexico, much about the biology of this species is unknown but it is critical to avoid direct mortality and habitat impacts.

57 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following
58 recommendations. SunZia and BLM should consult with the NMGFD regarding conservation measures for this species.

59 **Rare Plants:** SunZia should incorporate a detailed plan for avoiding rare plants in the Final EIS. Micro-siting of the actual construction zone within the analysis corridor should take account of available data-bases and rigorous on-the-ground surveys. All surface disturbing infrastructure and
60 operations should be located and conducted with care to avoid adverse impacts to rare plant habitat. This includes towers, access routes, and related facilities.

61 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following
62 recommendations. SunZia and BLM should consult with the USFWS, AZGFD, and NMGFD regarding conservation measures and site-specific mitigation for rare plant species.

VII. Impact Analysis for Wild Lands & Conservation Plans is Inadequate

The alternatives evaluated in the DEIS would have varying degrees of impact to a long list of wild lands and conservation areas in New Mexico and Arizona. The DEIS identifies many, but not all, of
63 these special areas. For example, the DEIS fails to adequately evaluate the project's potential impacts upon Pima County's Sonoran Desert Conservation Plan Conservation Lands System.

64 While we appreciate the DEIS inventory of wild lands and conservation investments that would be impacted by SunZia, the analysis is inaccurate or incomplete with regard to the impacts will occur to these areas. We also appreciate that the project proponent and BLM seek to minimize such impacts;
65 however, we are unconvinced that SunZia itself, as well as the future energy development projects it

2100	Comment Response
55	Comment noted
56	The DEIS (Section 4.6.4.6) acknowledges that impacts to Pronghorn related to disturbance could occur, although sensitive seasons would be avoided during construction and routine maintenance. Additional mitigation, including vegetation management to enhance habitat suitability within the right-of-way and potential compensatory or offsite mitigation, will continue to be considered.
57	Comment noted
58	No known populations of Chihuahua scurfpeas occur within the Project area, although suitable habitat may be widespread based on the limited knowledge of the species' needs. The species is also listed as BLM sensitive. Surveys would occur as warranted, and in appropriate weather conditions following sufficient rains to increase the probability of detecting any plants present.
59	Comment noted
60	Comment noted
61	Comment noted
62	All cooperating and other applicable agencies would be consulted as needed regarding rare plants. Current information indicates that, except as discussed in the DEIS, most rare plant species found in the study area are not likely to be present in the Project area. However, a discussion regarding the Pecos sunflower has been added to the FEIS (Section 3.6.6.1, 4.6.4.5), as new populations have recently been established through seed translocation in the Rio Grande floodplain between the two alternative crossing locations.
63	The Pima County Comprehensive Plan Update Regional Plan Policies, including the CLS were reviewed. The SunZia Project does not conflict with the CLS as stated in the comment because, as stated on page 36 of the Regional Plan Policies, "These policies apply to new rezoning and specific plan requests, time extension requests for rezoning, requests for modifications or waivers of rezoning or specific plan conditions, including substantial changes, requests for Comprehensive Plan amendments, Type II and Type III conditional use permit requests, and requests for waivers of the subdivision plat requirement of a zoning plan." The SunZia Project will require none of the stated actions, and therefore is not in conflict with the stated goals or requirements of the CLS.
64	A discussion of conservation easements along the Rio Grande and elsewhere in the project study corridor has been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.
65	Comment noted

2100

will enable into the future in the surrounding landscapes, will not compromise the integrity of the following vitally important conservation investments, conservation plans and intact natural landscapes:

- Pima County's Sonoran Desert Conservation Plan Conservation Lands System
- San Pedro River Valley and migration corridor (proposed National Wildlife Refuge and numerous private land conservation easements)
- Aravaipa Canyon / Galiuro Mountains Complex (USFS, State, Private)
- Saguaro National Park East (NPS)
- Las Cienegas National Conservation Area (BLM)
- Pima County preserves (County, State)
- AZGFD-identified wildlife linkages
- Rio Grande River and migration corridor
- Sevilleta National Wildlife Refuge (USFWS)
- Bosque del Apache National Wildlife Refuge (USFWS)
- Ladder Ranch (owned by Ted Turner)
- Lake Valley Ranch (owned by Jim Winder)
- Nutt grasslands complex (BLM, State, Private)
- Peloncillo Mountains Wilderness and wildlife linkage (BLM, State)
- Citizen-proposed wilderness areas (BLM, USFS, State)
  - Padilla Gonzales
  - Stallion Wilderness Study Area and contiguous roadless lands
  - Veranito Wilderness Study Area and contiguous roadless lands
  - Sierra de la Cruz
  - Cibola Canyon
  - Chupadera Wilderness Addition
  - Peñasco Canyon
  - Massacre Peak
  - Magdalena Mountains Units
  - Goodsight Mountains
  - Nutt Mountain
  - Sierra de las Uvas / Robledos
  - Lordsburg Playas
  - Pinaleño Mountains

65

Inventory of, and protection for, lands with wilderness characteristics

The Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to inventory and consider lands with wilderness characteristics during the land use planning process. See *Oregon Natural Desert Ass'n v. BLM*, 531 F.3d 1114, 1119 (9th Cir. 2008). Instructional Memorandum (IM) 2011-154 and Manuals 6310 and 6320 contain mandatory guidance on implementing that requirement. The IM directs BLM to "conduct and maintain inventories regarding the presence or

2100	Comment Response
	See following page(s)

absence of wilderness characteristics, and to consider identified lands with wilderness characteristics in land use plans and when analyzing projects under [NEPA]."

66 Under NEPA, BLM must update its inventory of lands with wilderness characteristics along the potential SunZia routes and cannot simply rely on the underlying Resource Management Plans (RMPs) along the potential routes. See *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1085-87 (9th Cir., 2011) (rejecting agency's reliance on "stale" inventory data as violating NEPA's "hard look" requirement). Manual 6310 identifies situations in which BLM must update its inventory, including when: "BLM has new information concerning resource conditions, including public or citizens' wilderness proposals" and when a "project that may impact wilderness characteristics is undergoing NEPA analysis." The Mimbres RMP (covering Luna, Grant and Hidalgo Counties in New Mexico), which is traversed by the proposed routes, is over 20 years old and an RMP revision has not been initiated for the area. The Socorro Resource Management Plan covers extensive acreage in the Quebradas wildlands complex east of Socorro, New Mexico, across which various alternative routes are proposed.

67 BLM should protect lands with wilderness characteristics, including Citizens' Proposed Wilderness (CPW) areas, and Wilderness Study Areas (WSA) from development because of the important resources and values found there. CPW lands have been inventoried by various citizens groups, conservationists, and agencies and have been found to have "wilderness characteristics," including naturalness, solitude, and the opportunity for primitive recreation. These lands also provide important wildlife habitat, cultural and scientific resources, invaluable ecosystem services including clean air and water, important economic benefits, and many other resources and values. The sensitive nature of these lands and their resources and values makes transmission development inappropriate there.

68 Furthermore, habitat fragmentation is now widely accepted as one of the leading causes of species endangerment and extinction. Therefore, maintaining the integrity of roadless areas and roadless area complexes is crucial to preserving the integrity and security of wildlife habitat. For this reason, new transmission corridors and associated access roads should follow existing disturbance corridors and avoid traversing currently roadless areas.

69 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Pursuant to FLPMA and IM 2011-154 and Manuals 6310 and 6320, BLM must

70 update its inventory of lands with wilderness characteristics in areas potentially affected by the proposed SunZia corridor. Wilderness designation is an important tool which provides a high degree of protection to wildlife and wildlife habitats. Because the loss of wilderness characteristics,

71 including those which are human-focused such as views, may disqualifty a proposed area from being designated as wilderness, with the loss of those habitat protections, BLM and SunZia should avoid development in or in proximity to all lands with wilderness characteristics, including CPW areas.

2100	Comment Response
66	As part of the data inventory and impact assessment, the BLM actively updated the lands with wilderness characteristics affected by the project in each field office, throughout the study area. No additional update is necessary. See response to comment #4.
67	Wilderness Study Areas (WSAs) are considered as exclusion areas by the BLM, and therefore no alternative routes have been sited that would impact WSAs. The BLM conducted an inventory of lands with wilderness characteristics and CWI units were also identified. Text has been modified in Section 3.12.4 of the FEIS as follows: Last sentence of first paragraph on page 3-266 *"Citizen's Wilderness Inventory Units have been reviewed as part of the inventory of Lands with Wilderness Characteristics on BLM lands."* The following CWI units would not be crossed by the preferred route: Padillo Gonzales, Chupadera Wilderness Addition, Penasco Canyon, Sierra de las Uvas, Nutt Mountain, and Goodsight Mountains. The Preferred Route would traverse the Cibola Canyon, Stallion, Sierra de la Cruz, and Lordsburg Playas North CWI units; however, there are existing unpaved roads within these units. The Preferred Route would also cross the Veranito but it would be located along the edge of this CWI unit where there are existing unpaved roads. The Magdalena Mountains (2 and 3), Nutt Mountain, and Massacre Peak CWI units would be crossed by the Preferred Route; however, it would parallel an existing 345kV transmission line and associated access roads within these units. Please also see response to Comment No. 5.
68	Comment noted
69	Comment noted
70	As part of the data inventory and impact assessment, the BLM actively updated the lands with wilderness characteristics affected by the project in each field office, through the study area. No additional update is necessary. See response to comment #4.
71	Comment noted

2100

a. New Mexico

72 **Citizens' Proposed Wilderness Areas:** BLM should protect all CPW areas from development, as described above. Even if a proposed corridor would follow the boundary of a CPW unit and would be outside of the unit itself, BLM should consider how such a tall, man-made structure would degrade wilderness characteristics and values. While we understand that the SunZia study corridor is one mile wide, and that the actual ROW width will be between 400-1,000 feet, using Geographic Information System (GIS) analysis, we have calculated the acreage of overlap between the one mile SunZia study corridor and CPW areas as follows:

Table 1. Units with a * are contiguous roadless lands with designated WSAs.

CPW Area Name	Acres overlap with SunZia corridor
Sierra de la Cruz	5,179
*Stallion	2,982
Padilla Gonzales	2,674
*Veranito	1,155
Cibola Canyon	1,848
Chupadera Wilderness Additions	3,033
Massacre Peak	641
* Sierra de las Uvas	380
Goodsight Mountains	3,669
Penasco Canyon	3,627
Magdalena Mountains Units	3,005
Nutt Mountain	2,311
Goodsight Mountains	3,669
Lordsburg Playas	4,161

Lordsburg Playas CPW

An example of a major conflict that has yet to be addressed is where the proposed link B150a would bisect the Lordsburg Playas citizens' proposed wilderness area. A major powerline such as SunZia through the middle of this area would not only negatively impact the wilderness characteristics and ecological values found within this unit, but bifurcation of this unit could eliminate the viability of this unique area for future wilderness designation. Bifurcation of numerous other CPW units by various proposed SunZia route alternatives could result in a similar disqualification from future wilderness designation.

The Citizens' New Mexico BLM Wilderness Inventory states: "The Lordsburg Playas are a series of three lakebeds that are dry for much of the year, usually containing water only after late summer and

2100	Comment Response
72	Per guidance in Conducting Wilderness Characteristics Inventory of BLM Lands Manual (MS-6310), all BLM lands with proposed applications need to go through an inventory for lands with wilderness characteristics. For the assessment of LWC's for SunZia the only LWC inventory units in New Mexico that were identified based on the manual (MS-6310 was Nutt Mountain that would be crossed by one of SunZia's alternatives (not the Preferred Route). The Preferred Route would also cross a pending LWC unit adjacent to Stallion WSA. For the assessment of LWC's for SunZia the only LWC inventory units in Arizona that were identified based on the manual (MS-6310) was Muleshoe that would be crossed by one of SunZia's alternatives (not the Preferred Route). Thus the potential to preclude wilderness designations is reduced for the Project.

fall rains. Playas are a landform unique to the basin and range formations of the Southwest, yet no representation of this landform has been included or is recommended for inclusion in the Wilderness system by BLM. The vegetation of the area is unique because of the occasional flooding, soil chemistry, and soil accumulation. The BLM has designated part of this unit as a Research Natural Area to protect the Griffith's saltbush (*Atriplex griffithsii*) a plant known to exist in only three places in the world; two in New Mexico and one in Arizona. In addition, the playas are also an important stopover for shorebirds, sandhill cranes, and ducks."

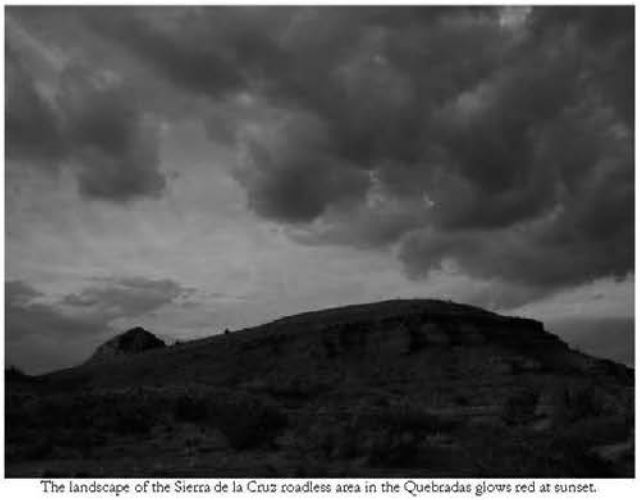
The vast development-free Lordsburg Playas roadless area as seen from the Peloncillo Mountains.

Quebradas CPWs

Proposed links E101, E133, E90, and A111 would cut across or run directly adjacent to numerous CPW units in the Quebradas wild land complex east of Socorro (see Table 1). The Citizens' New Mexico BLM Wilderness Inventory states: "The Quebradas Complex is an area of unique landforms and rich archaeological history…This complex of wildlands is at the crossroads of the New Mexico landscape. Geographically, this is the northernmost distribution of Chihuahuan Desert shrub and cactus communities. This is also a transitional area where coniferous woodland covers a good portion of the landscape… This transition zone includes areas where pinyon pine, juniper, mountain mahogany, and other more mountainous plants are found along with desert species. The area is also habitat for two special-status plant species: *Dalea scariosa* and *Amsonia fugatei*. The relatively lush arroyos in the western part of the complex also provide corridors through which wildlife can travel

2100

from desert areas east of Socorro to water along the Rio Grande. The Cibola Canyon, Sierra de las Cruz, and Veranito units also provide a biotic linkage to Sevilleta NWR to the north. The Loma de las Cañas unit itself contains seeps and springs that provide important water in a desert environment. The presence of mule deer, the proximity to the Rio Grande, and the abundance of canyons make this prime mountain lion country. Jackrabbits, numerous other small mammals, and quail provide a prey base for the many raptors, coyotes, and gray and kit fox that inhabit the area. Additional mammals here include bats and rock squirrels. Many birds have been observed here. The list includes raven, turkey vulture, great-horned owl, Swainson's hawk, red-tailed hawk, Cooper's hawk, prairie falcon, kestrel, hummingbird, dove, quail, red-shafted northern flicker, Western meadowlark, fox sparrow, western wood peewee, Virginia warbler, and other songbirds. The grassland areas are also historic habitat for Aplomado falcons."



The landscape of the Sierra de la Cruz roadless area in the Quebradas glows red at sunset.

Magdalena Mountains and Chupadera Wilderness Addition CPWs

Proposed links E211, A160 and A161b would cross or run directly adjacent to CWP units in the Magdalena and Chupadera Mountains complex. The Citizens' New Mexico BLM Wilderness Inventory states: "Two units in the complex are made up of BLM lands and adjacent Forest Service lands that are also suitable for wilderness designation. The Chupadera Wilderness addition is to the southeast of the Magdalena Mountains and is contiguous with the existing Chupadera Wilderness in the Bosque del Apache National Wildlife Refuge. The BLM parcels in the [Chupadera and Magdalena] range[s] consist of rolling volcanic hills, isolated mesas, and foothills dotted with pinyon

pine, juniper, and oak, with significant canyons leading to the heart of the range…the Chupadera Wilderness Addition provides an important biotic linkage between the Rio Grande and the Magdalena Mountains. Animals likely use the canyons in the unit as corridors for traveling from the mountains to the river." The proposed link A160 would cross over Walnut Creek at the location of a very scenic and popular spot along a major access road. Much of the Walnut Canyon Special Management Area (SMA) is largely contained within the Chupadera Mountains Wilderness Addition. Walnut Canyon SMA contains habitat that supports a variety of species, including golden eagles, prairie falcons, and great horned owls.

Steep-walled canyons and high juniper-studded mesas in the Chupadera Wilderness Addition.

Wilderness Study Areas: Wilderness Study Areas (WSAs) are legally protected from development, including transmission line development. *See* 43 U.S.C. § 1782(c). The SunZia study corridor is in close proximity to the following WSAs: Veranito (directly adjacent to southern boundary), Stallion (1.72 miles from southern boundary), Presilla (2.45 miles from northern boundary), Sierra de las Canas (approximately 3 miles from northern and southern boundaries), and Devil's Backbone (1.77 miles from eastern boundary). The DEIS quantifies the percentage of these WSAs where SunZia would be visible – ranging from 15% of the Presilla WSA to as much as 70% of the Veranito WSA. Although the DEIS characterizes SunZia's potential impacts to these areas as "indirect," SunZia's impacts to the wilderness character of these WSAs would be direct, negative and lasting.

73

2100	Comment Response
73	Comment noted

74 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM must more accurately and completely characterize the direct nature of impacts to wilderness characteristics and values in designated Wilderness Study Areas and CPW areas. As noted above, because wilderness designation protects wildlife and habitat, Wilderness Study Areas and CPW areas should be avoided. Links that cross CPW units or are very near WSAs should be dropped from further consideration so as to avoid impairment to wildlife. The fragmentation of roadless lands via road construction should be avoided, so as to maintain wildlife habitat integrity and security.

75

b. Arizona

Sulphur Springs Valley: Sulphur Springs Valley is an internationally recognized destination for birding ecotourism particularly centered around raptors. The valley hosts the largest concentration of wintering hawks in the United States, providing winter habitat for 14 species of raptors, including bald and golden eagles, Harris's, ferruginous, and rough-legged hawks.

76 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Sulphur Springs Valley is a sensitive area for avifauna that should be avoided. However, if selected, this link would require careful planning to avoid key bird habitats. Bird diverters should be implemented on line segments that intersect flyways or ridgelines, so as to make the wires more visible and thus to avoid direct mortality due to collisions.

77

Designated Wilderness

Peloncillo Mountains Wilderness Area: According to BLM, this wilderness area "lies within the rugged Peloncillo Range, which stretches from Mexico to the Gila River…**Desert bighorn sheep** have been recently reintroduced to the region and share their home with peregrine falcons and four other sensitive animal species. Vegetation ranges from desert shrub grasslands in the surrounding flatlands to oak juniper woodlands in the higher reaches." The Peloncillo mountain chain forms a vital north/south wildlife linkage. While this linkage is impaired by I-10 and railroads that are routed through Steins Pass at the Arizona/New Mexico border, an additional east/west disturbance corridor would only further compromise the integrity of this important wildlife linkage. Instead of directly following the existing disturbance corridor of I-10 and the railroad at Stein's pass, proposed link B150a would be located approximately 5 miles north of the existing transportation corridor, impacting currently undisturbed wild lands, and passing within 0.5 miles of the southern boundary of the Peloncillo Mountains wilderness area. This would significantly impact the naturalness and viewshed of this BLM designated wilderness, particularly from the southern portion of the unit. This is an inappropriate location for a major new energy corridor. Links B160a and B160b would run even further north through undeveloped terrain, although they would be located much further away from the designated wilderness area. This route would also potentially allow the avoidance of the Lordsburg Playa.

2100	Comment Response
74	Comment noted
75	Comment noted
76	Please see response to Comment No.5.
77	Comment noted

2100

Agave in bloom, on a ridge in the Peloncillo Mountains. These mountains contain a BLM-designated Area of Critical Environmental Concern and a designated wilderness area.

78 79

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The proposed B150a link should be located much closer to, and parallel with Interstate 10 and the railroad to avoid impacts to the designated wilderness area and wild lands that form an important wildlife linkage. If for some reason link B150a cannot be located coincident to these transportation corridors, Links B160a/B160b would be preferable so as to avoid bifurcating Lordsburg Playa and close proximity to the Peloncillo Mountains wilderness area.

Citizens' Proposed Wilderness

Pinaleño Mountains Proposed Wilderness: The Pinaleño Mountains are a classic sky island mountain range that traverses five ecological communities, and according to the Nature Conservancy contains the highest diversity of habitats of any mountain range in North America. Link B153a would traverse the edge of this proposed wilderness on its eastern flanks, and would significantly detract from the naturalness of the area.

Aravaipa Canyon Wilderness and Galiuro Proposed Wilderness Additions: As noted earlier in our comments, Aravaipa Canyon and the Galiuro Mountains are at the heart of one of the wildest and most intact wilderness complexes in the Southwestern United States. Adjacent to the two

2100	Comment Response
78	Comment noted
79	Link B150a, located along Subroute 3A1 (BLM Preferred Alternative identified in the DEIS) was sited to follow within an existing pipeline corridor where access is available. A route located adjacent to I-10 would result in conflicts with land uses and visual impacts. Note that the BLM Preferred Alternative (Subroute 3A2) as indicated in the FEIS would not include Link B150a.

designated wilderness areas are contiguous roadless public lands that have been identified by the Arizona Wilderness Coalition's Citizens' wilderness inventory as suitable for wilderness designation. Proposed link C170 would be routed within less than one mile of both of the proposed wilderness additions.

According to The Nature Conservancy, "The Galiuro-Aravaipa-Santa Teresa area encompasses over 100,000 acres of intact, high value wildlife habitat. The area maintains the full complement of wildlife from large mammals (mountain lion, black bear, bighorn sheep, mule deer, white-tailed deer), to highly limited species such as Gould's turkey and the threatened Mexican spotted owl. The Aravaipa area, alone, includes over 500 species of plants and birds, 45 mammals, and 67 amphibians and reptiles. The streams on the Muleshoe Ranch and Aravaipa Canyon are the best refugia remaining for the states' imperiled native fish species. The abundance of the area's bighorn sheep population has enabled the Game and Fish Department to transplant." [23] A new development corridor would be detrimental to the security and integrity of outstanding wildlife habitat in this wild land complex.

80 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Proposed links Link B153a and C170 should be dropped from further
81 consideration due to high levels of impact to public lands with wilderness characteristics and ecological values.

Sonoran Desert Conservation Plan

This section was contributed by the Coalition for Sonoran Desert Protection. Defenders is a long-standing member of the Coalition, which works to create a community where ecosystem health is protected, nature and healthy wild animal populations have value, and visitors, children and future generations can all drink clean water, breathe clean air, and find wild places to roam.

Pima County's Sonoran Desert Conservation Plan (SDCP) is a ground-breaking effort to conserve the most ecologically valuable lands and resources across the region, while guiding growth into more appropriate areas. The SDCP addresses several elements of resource conservation, including cultural preservation, open space conservation, protection of parks and natural reserves, and ranch conservation, and ecological conservation.

The biological goal of the SDCP is "to ensure the long-term survival of the full spectrum of plants and animals that are indigenous to Pima County through maintaining or improving the ecosystem structures and functions necessary for their survival." While the DEIS does acknowledge the SDCP, the only major component of the SDCP analytically evaluated in the DEIS are impacts to "priority vulnerable species."

[23] See: Cumulative Effects Analysis for Proposed SunZia Transmission Line. Rob Marshall, Dale Turner, and Dan majka, The Nature Conservancy, June 18, 2012.

2100	Comment Response
80	Comment noted
81	Comment noted. Neither Link B153a (Subroute 4A) or Link C170 (Subroute 4A and 4B) is not part of the BLM Preferred Alternative (Subroute 4C2c).

On page 3-181, the DEIS states:

"Unincorporated areas of Pima County are managed under the SDCP, which includes a science-based conservation plan, a comprehensive land use plan, and a multiple species conservation plan. The SDCP gives "high priority to preserving and protecting (Pima County's) most important natural resources." Goals and objectives for the biological element of the SDCP include the following:

- *"Promote long-term viability for species, environments, and biotic communities that have special significance to people in this region, because of their aesthetic or cultural values, regional uniqueness, or economic significance" (Pima County 2010)"*

82 While the DEIS acknowledges the existence of the SDCP, it fails to evaluate SunZia's impacts to important elements of this regional conservation planning effort. One key component of the SDCP that deserves further evaluation in the Final EIS is the impact on the Maeveen Marie Behan Conservation Lands System (CLS).

Conservation Lands System (CLS)

The CLS was constructed with participation and oversight by the SDCP Science Technical Advisory Team and according to the most current tenets of conservation biology and biological reserve design. The CLS emphasizes retaining areas that contain large populations of priority vulnerable species; providing for the adjacency and proximity of habitat blocks; preserving the contiguity of habitat at the landscape level; and retaining the connectivity of reserves with functional corridors. Through the application of these tenets, the CLS retains the diverse representation of physical and environmental conditions, preserves an intact functional ecosystem, minimizes the expansion of exotic or invasive species, maximizes the extent of roadless areas, and minimizes fragmentation.

A map of the CLS identifies the categories of environmentally-sensitive lands developed by the Science Technical Advisory Team, as well as an associated set of development guidelines and open space set-asides that have been integrated into the County's planning and zoning regulations and are required for development projects that are subject to a rezoning or other discretionary action. The CLS is part of the Environmental Element of Pima County's Comprehensive Land Use Plan's Regional Plan Policies.

2100	Comment Response
82	See comment response #63 above

2100

Table 2. Acres of Pima County's Conservation Lands System that would be impacted by typical 400-foot right-of-way associated with SunZia routes.

CLS Categories	SunZia Routes Through Pima County		
	Preferred	4C2	4C2 Local Alternative
Important Riparian	24 acres	670 acres	976 acres
Biological Core Management	638 acres	970 acres	462 acres
Multiple Use Management	124 acres	592 acres	173 acres
Special Species Management	*See analysis below*		

Important Riparian Areas constitute the most biologically sensitive of CLS lands. They are "critical elements of the Sonoran Desert where biological diversity is at its highest... [They] are valued for their higher water availability, vegetation density, and biological productivity. They are also the backbone to preserving landscape connectivity."[24] Pima County guidelines recommend a landscape conservation objective of 95% undisturbed natural open space for Important Riparian Areas.

Biological Core Management Areas are "those areas that have high biological values. They support large populations of priority vulnerable species, connect large blocks of contiguous habitat and biological reserves, and support high value potential for five or more priority vulnerable wildlife species." Pima County guidelines recommend a landscape conservation objective of 80% undisturbed natural open space for Biological Core Management Areas.

Multiple Use Management Areas are "those areas where biological value are significant…[and] support populations of vulnerable species, connect large blocks of contiguous habitat and biological reserves, and support high value potential habitat for three or more priority vulnerable species."[17] Pima County guidelines recommend a landscape conservation objective of 66-2/3% undisturbed natural open space for Multiple Use Management Areas.

Special Species Management Areas are "areas defined as crucial for the conservation of specific native floral and faunal species of special concern to Pima County. Currently, three species are designated as Special Species: cactus ferruginous pygmy-owl, Mexican spotted owl, and southwest willow flycatcher."[17] Lands designated as Special Species Management Areas occur throughout the other CLS land designations, with the mapped areas displayed as an overlay. Pima County guidelines recommend at least 80 percent of the total acreage of lands within this designation shall be conserved as undisturbed natural open space and will provide for the conservation, restoration,

[24] See Pima County's Comprehensive Land Use Plan and proposed Multi-Species Habitat Conservation Plan permit documents at: http://www.pimaxpress.com/Documents/planning/ComprehensivePlan/PDF/Policies_Legend/Regional%20Plan%20Policies%20%28pp.%2019-65%29.pdf

2100	Comment Response
	See following page(s)

2100

or enhancement of habitat for the affected Special Species. As such, land use changes will result in 4:1 land conservation (i.e., four acres conserved for every one acre developed) and may occur through a combination of on- and off-site conservation inside the Special Species Management Area. The 4:1 mitigation ratio will be calculated according to the extent of impacts to the total surface area of that portion of any parcel designated as Special Species Management Area."[17]

Table 3. Acres of Pima County's Special Species Management Areas that would be impacted by typical 400-foot right-of-way associated with SunZia routes.

Overlap with other CLS Categories	SunZia Route 4C2
Important Riparian	284 acres
Biological Core Management	88 acres
Multiple Use Management	473 acres
Areas outside CLS	3 acres

Finally, Critical Landscape Connections are another important component of the CLS. They are "broadly defined areas that provide connectivity for movement of native biological resources but which also contain potential or existing barriers that tend to isolate major conservation areas."[17] Two of the Critical Landscape Connections are "across the I-10/Santa Cruz River corridors in the northwest" and "across the I-10 corridor along Cienega Creek in the east,"[17] two areas crossed by the 4C2 route.

83

The proposed SunZia Project poses significant threats to the CLS, but the DEIS does not quantify or even qualify impacts to the CLS, a crucial component of the larger SDCP. Without further evaluation of the CLS and other components of the SDCP such as Pima County's proposed Multi-Species Conservation Plan, the DEIS does not satisfy the federal mandate that a DEIS "shall include discussions of possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned." 40 C.F.R. § 1502.16(c). Furthermore, the DEIS does not align with 40 C.F.R. § 1506.2(d) which states that, "To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law."

More detailed conservation guidelines and the CLS map can be found in Pima County's Comprehensive Land Use Plan and proposed Multi-Species Habitat Conservation Plan permit documents.[17]

2100	Comment Response
83	See comment response #63 above

2100

Biological Resource Conservation Areas

84 Beginning on DEIS page 4-81, several biological resource conservation areas are identified. It appears however that the list is not complete. The most significant source of funds for open space in Pima County came from voter approval in 2004 of $174 million in bond funds to acquire conservation lands identified as Habitat Protection Priorities. Several of the properties purchased with these bonds funds are not analyzed in the DEIS.

Cienega Valley – Empire Ranch Reserve

85 The DEIS does identify Cienega Creek Natural Preserve as a conservation area in this county reserve area. The DEIS fails, however, to identify Bar V Ranch, which would be crossed by Subroute 4C2, as a conservation area. Bar V Ranch was conserved not only through over $8 million dollars in conservation investment from Pima County in the purchase of fee simple lands and state grazing leases, but also through $500,000 in scenic easement funding from the State Transportation Board in 2004 in order to preserve viewsheds. Bar V Ranch is a critical component of the county's preserve system, supporting habitat for at least 34 of the 55 Priority Vulnerable Species identified in the Sonoran Desert Conservation Plan.

Subroute 4C2 Local Alternative would directly cross the Poteet property. This 83-acre property was purchased in 2005 and supports important riparian habitat, including habitat for at least seven Priority Vulnerable Species.

Another property in the reserve area that would be affected by the 400-foot right-of-way associated with Subroute 4C2 is the Walden property. This property supports habitat for the Mexican long-tongued bat, Mexican garter snake, and Swainson's hawk, among others.

San Pedro Valley Reserve

The DEIS analyses impacts to the county's A7 Ranch beginning on pages 4-84 and 3-106.

86 However, the DEIS fails to consider impacts to Pima County Six Bar Ranch, which the BLM Preferred Route would cross. This 12,000 acre ranch contains a major tributary to the San Pedro River – Edgar Canyon. Besides supporting habitat for a variety of wildlife, the ranch is important in providing an open space corridor between the Santa Catalina and Galiuro Mountains. Much more information about this property, and all other county preserved properties, can be found in the *Protecting Our Land, Water, and Heritage: Pima County's Voter-Supported Conservation Efforts* report published in February, 2011.

87 **Recommendations:** We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must adequately analyze the direct, indirect, and cumulative

88 impacts of SunZia to Pima County's Sonoran Desert Conservation Plan, Maeveen Marie Behan Conservation Lands System, and reserves. Before a Final EIS and Record of Decision is issued, the BLM needs to more thoroughly analyze possibly conflicts between the proposed action and this local land use plan, as required by 40 C.F.R. §§ 1502.16(c) and 1506.2(d).

2100	Comment Response
84	The BLM preferred alternative through the Sulphur Springs Valley is entirely parallel to existing transmission lines, operated without bird flight diverters. However, bird diverters would be considered as a potential mitigation measure in this location. Final selection of mitigation measures would be detailed in the Avian Protection Plan. Note that self-supporting structure types would be selected in this location, to minimize impacts on land use and reduce the collision risk to birds foraging in the surrounding agriculture.
85	A discussion of conservation easements in the project study corridor has been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.
86	A discussion of conservation easements in the project study corridor has been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.
87	Comment noted
88	As stated above, the SunZia Project is not required to be in conformance with the CLS. A discussion of conservation easements in the project study corridor has been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.

2100

Arizona's Wildlife Linkages

As detailed in the DEIS, SunZia has numerous potential impacts to Pima County's and southern Arizona's wildlife linkages.[25] The protection of wildlife linkages is a core focus of the Sonoran Desert Conservation Plan and the Coalition for Sonoran Desert Protection. Significant local resources, including millions of dollars of open space purchases and infrastructure investments, have been spent on protecting Sonoran Desert wildlife linkages in recent years.

Generally speaking, a new transmission line, new or improved access roads, and increased vehicle traffic and associated maintenance activities could create habitat fragmentation that could impair the functionality of wildlife linkages and migration corridors. New access roads associated with the transmission line could facilitate the introduction and spread of invasive species, as well as unauthorized motorized activity and associated disturbances that could impair the functionality of the wildlife linkages.

The DEIS analysis of potential impacts to these important linkages infers on numerous occasions that because linkages already have impairments (i.e. existing highways, railways, etc.), that the addition of a transmission line and associated infrastructure would not appreciably further degrade their functionality. For instance, the DEIS (4-87) states, "Project links cross strands with a mixture of new access roads and existing roads requiring upgrades. I-10 and the UPRR are significant, pre-existing barriers to wildlife movement south of the Project (in strands 1, 2, 3, and 4), such that any additive effects from Project development would not contribute substantially to a reduction of wildlife movement potential." We question the assumption that additional and improved access roads associated with the project would not "contribute substantially to a reduction of movement potential". Depending upon the species in question, the addition of new roads, or improvement of existing roads, could indeed have significant impacts on wildlife movement potential, especially if such movements are more localized and do not traverse the entire length of the linkage. In addition, direct mortality from traffic is likely to occur in these linkages – an impact that has not been quantified in the DEIS. It is important to note that linkages are not assumed to be traversed in their entirety by wildlife, but rather represent swaths of habitat that are important for general habitat connectivity, dispersal movements, and in some cases, function as habitat for resident wildlife.

89

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS should more accurately analyze and characterize the impacts SunZia would have upon habitat connectivity for the species that have been modeled for the affected Arizona Wildlife Linkages. In addition, BLM should consult with AZGFD and USFWS to identify adequate mitigation measures to avoid, minimize, and offset impacts to these wildlife linkages resulting from road construction, improvement, maintenance, and associated traffic.

90

91

[25] Detailed reports and spatial data for all modeled wildlife linkages in Arizona, see: http://corridordesign.org/linkages/arizona

2100	Comment Response
89	The DEIS discussed how the Project may contribute to fragmentation (Section 4.6.3.1). Based on existing conditions and the lack of information indicating that transmission lines form a barrier to movement for any species present in the Project area, the direct impact of the Project is not anticipated to be significant. The DEIS acknowledges that increased traffic may affect wildlife, although this cannot feasibly be quantified at this time. A range of maintenance traffic could be estimated, but recreational traffic would be expected to be highly variable, dependent on proximity to population centers, access, season, OHV use restrictions, law enforcement, and other factors.
90	Comment noted
91	Compensatory mitigation for residual impacts will be determined through coordination between the proponent and any applicable agency.

VIII. Cumulative Impacts

Under NEPA, BLM is required to consider the cumulative impacts associated with the SunZia project. *See* 40 C.F.R. § 1508.25. A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *Id.* at § 1508.7. "The point [of a cumulative impacts analysis] is that a large overview should be maintained toward the magnitude of environmental effects, both of the immediately contemplated action and of future actions for which the proposed action may serve as a precedent or have a cumulatively significant impact." *Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 88-89 (2d. Cir 1975).

A comprehensive cumulative impacts analysis is essential to inform the proper siting, design and operation of transmission projects. The Final EIS should fully evaluate the potential cumulative impacts of all current, proposed and reasonably foreseeable projects that will impact the lands and resources traversed by the line. The following should be incorporated into the cumulative effects analysis:

92

- Impacts to special status species and their habitats from wind farms, utility-scale solar, natural gas, and other energy development that SunZia would enable the construction of or carry energy from. Activities and designations include but are not limited to: the BLM-proposed Afton Solar Energy Zone (BLM Solar Final PEIS), the National Renewable Energy Laboratory (NREL)-identified Western Renewable Energy Zone Qualified Resource Areas (produced by Black & Veatch under subcontract with NREL for the Western Governors Association)[26], and BLM-proposed Renewable Energy Development Areas (preferred alternative) in the DEIS for the Arizona BLM's Restoration Design Energy Project (RDEP).
- The proposed Southline Transmission Project, a high voltage electric transmission line and substations. Proposed routes for Southline are in close proximity to SunZia's proposed alternatives between Willcox, AZ and Deming, NM. Therefore, this region in particular deserves detailed cumulative impacts analysis for both of the proposed transmission projects, to include biological (e.g. habitat fragmentation, disturbance, avian impacts, etc.) and cultural resource impacts. The cumulative impacts map in the DEIS (Figure 4-1, 4-249) only delineates the southern proposed route of Southline; however, during scoping for this project, a northern route, parallel to I-10 and much closer to SunZia's proposed routes is being evaluated. The Final EIS needs to take this new information into consideration in its cumulative impacts analysis.
- The proposed Bowie Power Station, a 1,000 megawatt electric generation facility planned for southeastern Arizona near the community of Bowie in Cochise County.
- Direct and indirect impacts to lands with wilderness characteristics and values, to include the potential of SunZia foreclosing future wilderness designations. The potential for SunZia to open up currently roadless areas (i.e. areas with wilderness characteristics) to additional road

[26] NREL Western Renewable Energy Zones, Phase 1: QRA Identification Technical Report http://www.nrel.gov/docs/fy10osti/46877.pdf

2100	Comment Response
92	The cumulative impact analysis in Section 4.17 of the DEIS evaluates potential cumulative impacts to special status species and noxious weeds (Section 4.17.4.6), lands with wilderness characteristics (Section 4.17.4.12), and fire frequency, regimes and management (Section 4.17.4.7) associated with development that was identified in the Past, Present and Reasonably Foreseeable Future. It is acknowledged that development of energy resources that could interconnect with the Project may occur within proximity to the proposed substations, as described in the energy development scenarios. Reasonably foreseeable future energy developments have been identified in Table 4-30 of the FEIS, which include the Bowie Power Station, the Afton Solar Energy Zone, the NREL identified QRA's, and the Southline Transmission Project. The FEIS has been updated to include recent changes in the Solar PEIS and RDEP.

creation (both legal and illegal) and other human developments that are contrary to wilderness management.

92

- The introduction and spread of non-native, noxious plants and;
- Changes to fire frequency, fire regimes and fire management.

93

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. For all of the above projects and activities, the Final EIS should analyze potential impacts and timing to provide a full picture of potential cumulative impacts. BLM and SunZia should conduct a more thorough cumulative impacts analysis, to include impacts to special status species from energy development enabled by SunZia, the proposed Southline Transmission line, the proposed Bowie Power Station, direct and indirect impacts to lands with wilderness characteristics and values, introduction and spread of non-native noxious plants and changes to fire frequency, regimes and management. A comprehensive cumulative impacts analysis will contribute to informed decision-making as required by NEPA, and help inform appropriate mitigation measures, opportunity costs and larger picture decisions about the level of development that can be sustained by the environment and local communities.

94

Summary:

Defenders is committed to guiding our nation's transition to clean energy in a way that protects wildlife and habitats by ensuring renewable energy and transmission projects are built "smart from the start" so as to avoid, minimize and effectively mitigate for negative impacts to our environment, wildlife habitat and other sensitive resources.

We recognize that new transmission lines will be needed in some cases to carry renewable energy to population centers, and create improved transmission capacity and reliability. However, renewable energy and associated transmission development are not appropriate everywhere on the landscape.

Upon review of the DEIS for SunZia, we urge BLM to select the "no action alternative" for the following reasons:

95

1) All proposed routes would adversely impact ecologically sensitive areas and wildlife resources, including wildlife habitats with regional and global significance;
2) The stated purpose and need for the SunZia Project is misleading and incomplete;
3) The BLM's alternatives analysis is not consistent with the Sunzia Project's stated purpose and need and does not evaluate the full range of reasonable alternatives. Other alternatives not yet analyzed, or other projects, could adequately serve the stated purpose and need;
4) The impact analysis for wild lands and conservation plans is inadequate;
5) The public process has lacked transparency and effective public engagement.

96

SunZia is a highly controversial project. We are concerned with the quality and nature of the public process that has been conducted by the BLM for the SunZia project to date. As such, BLM should

2100	Comment Response
93	Comment noted
94	Please see response to Comment No. 92.
95	Comment noted
96	Comment noted

96 provide additional opportunities for meaningful public engagement leading up to the Final EIS, so as to comply with the intent and purpose of NEPA. Issues and input gathered from such public engagement should be used by BLM to inform and guide its decision making process. BLM should consider engaging the USIECR or other professional mediators to ensure productive communication and increase the likelihood of resolving outstanding conflicts.

We appreciate the opportunity to submit these comments.

Sincerely,

Matt Clark
Southwest Representative
Defenders of Wildlife

Carolyn Campbell
Executive Director
Coalition for Sonoran Desert Protection

Melanie Emerson
Executive Director
Sky Island Alliance

Paul Green
Executive Director
Tucson Audubon

2100	Comment Response
	See following page(s)

2160

3443 E. Lee Street
Tucson, AZ 85716
Submitted by electronic mail and certified U.S. Mail August 17, 2012

Mr. Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, AZ 87501
NMSunZiaProject@blm.gov

Dear Adrian:

Attached is an outline of some of the deficiencies and issues that I have identified for the SunZia Draft Environmental Impact Statement and the project itself. Many of these issues are related to the purpose and need for the project, which is a matter of considerable contention. I hope that this outline will help focus the debate about the purpose and need for this project and the feasibility of building a project like this. The outline is self-explanatory.

Thank you for considering these comments.

Sincerely,

Norm "Mick" Meader

Norm "Mick" Meader
(520) 323-0092
nmeader@cox.net

2160	Comment Response
	Please refer to responses to comment letters-1604, 2161, 2162, 2164, and 2412

2161

Cascabel Working Group
Submitted by electronic mail and U.S. Mail August 17, 2012

Mr. Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, AZ 87501
NMSunZiaProject@blm.gov

Cascabel Working Group response to the Draft Environmental Impact Statement for the proposed SunZia Southwest Transmission Project, with Emphasis on Subroutes 4A and 4B

By David Omick

1 **--Section 2.3.2.3**
Subroutes 4A and 4B follow fewer miles of existing utility corridors (22 and 28 miles respectively) than do any other Route Group 4 alternatives.

2 **--Section 2.3.3.3**
Demand side management is conceived in unrealistically narrow terms and given inadequate analysis and emphasis. It is widely recognized in the energy field that conservation is the nation's greatest source of untapped energy. Furthermore, conservation has no adverse environmental impacts. This section should be expanded.

Distributed Generation is also given inadequate analysis and emphasis. Its potential in the abundantly sunny load centers the Project proposes to serve is huge. Distributed generation, combined with energy conservation, efficiency advances, microgrid technology and transmission control technology would eliminate the need for the Project. This section should be rewritten and expanded.

3 **--Section 2.4.10.1**
Link C170 traverses the Galiuro Mountains, in a remote, currently roadless area with wilderness characteristics. This Section notes that in steep or rugged terrain, two separate access roads may be required, further degrading the wilderness characteristics of this area and potentially causing greater erosion.

4 **--Section 2.4.10.7**
Given the size of staging areas (200 x 600 feet in area, spaced every 18,000'), in steep, rugged and relatively pristine mountain areas such as Link C170 traverses, they need to be identified in the DEIS, not afterward in the POD.

2161	Comment Response
1	Comment noted
2	The BLM Preferred Alternative for the proposed action is to grant right-of-way for two 500 kV transmission lines. The BLM has considered other options including alternate transmission routes and technologies such as system upgrades, but alternative technologies eliminated because they would not be practicable and feasible as described in Section 2.3.3 of the DEIS. As stated in Section 2.3.3.3 of the DEIS "since energy efficiency programs do not address these needs (for the Project), they were eliminated from further consideration."
3	Comment noted
4	The amount of staging area ground disturbance has been calculated and included in the results of the impact analysis. Specific locations of staging areas can be identified only after engineering is completed, although they are typically located in the flatter, less rugged areas with good access.

2161

5 **--Section 2.4.11.3**
No indication is given as to who is responsible for covering the costs of decommissioning. Given rapidly advancing electrical technology, the Project could well be obsolete far earlier than its useful 50 year life. Information about financial, administrative and legal responsibility for decommissioning should therefore be specific and detailed.

6 **--Table 2-11**
Mitigation Measure 6 states: "To minimize disturbance to sensitive habitats or resources, access roads required for operations purposes would be gated or otherwise blocked from public access." As highlighted in numerous scoping comments, gates and other methods used to block roads are typically ineffective. Is well established that OHV users frequently find ways to circumvent gates and other attempts to block back-country roads. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 46-49.

Additionally, a road linking the east and west sides of the Galiuro Mountain complex on Link C170 will be highly attractive to OHV and other back-country users. Given the high potential for unauthorized OHV travel on SunZia service roads, Mitigation Measure 6 is grossly inadequate and should specify in detail how unauthorized road use will be prevented, what the frequency of monitoring will be for such measures and who will responsible for such monitoring.

7 **--Table 2.15**
Visual Resources makes no mention of visual impacts to backcountry users along much of Subroute 4B, including the Santa Theresa Wilderness, Aravaipa Wilderness, Galiuro Wilderness and portions of the Coronado National Forest.

8 Biological Resources does not list desert bighorn sheep, a high profile species in the Galiuro/Aravaipa portion of Link C170 which may be adversely affected by the Project.

9 **--Section 3.6.5.2**
No mention is made of fact that the San Pedro Valley is one of the major migratory flyways in the American West. This should be recognized and its economic importance emphasized. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 49-71.

10 **--Section 3.9.1.2**
See next section.

--Section 3.9.3.3
Scenic quality is highly subjective. Based on the selected classification method, most viewers would rate Link C170, particularly on the east side of the Galiuro

2

2161	Comment Response
5	The BLM would require that right-of-way grantee be responsible decommissioning.
6	Selective Mitigation Measure No. 6 (Table 2-11, DEIS p.2-92) would be implemented where effective to prevent vehicular access to certain roads. The detailed description of gate locations and monitoring frequency will be provided in the Final Plan of Development, based on specific road locations.
7	Impacts to these wilderness areas and associated access roads/travel routes were disclosed in the DEIS (see Map Volume Figure M 9-2W). In addition, a viewshed analysis was conducted for Aravaipa Wilderness to microsite the project to minimize visibility. Representative roads and trails that provide access to these wilderness areas or proximity to these areas were also inventoried and assessed for impacts in the DEIS (i.e., Rug Road, Klondyke Road). Specific areas may not have been addressed in the DEIS if impacts from these areas were determined to be low. Added text to describe low impacts to Aravaipa Canyon Wilderness (Section 4.9.3.). *"Low impacts are anticipated for the Santa Teresa Wilderness and Aravaipa Canyon Wilderness area, where the project would be screened by vegetation and terrain for viewers within 3.75 miles. Limited views of the project may occur from superior views (i.e., mountain ridges); however, project contrast would be reduced at this distance. Impacts to Rug Road, a travel route used to access Aravaipa Canyon Wilderness, are described below."* Added text to describe low impacts to Aravaipa Canyon Wilderness (Section 4.12.3.3). "Link C170 would be visible from approximately 2,046 acres (8 percent) of the Santa Teresa Wilderness Area *and approximately X acres (X percent) of the Aravaipa Canyon Wilderness Area*. The visibility of the proposed link, located approximately 2.9 miles south of the *Santa Teresa* wilderness area boundary *and 3.75 miles south of the Aravaipa Canyon wilderness area boundary*, would have minimal indirect impacts affecting the outstanding opportunities for solitude within these wilderness areas. Due to the size and rugged terrain of the wilderness areas, there would still be ample opportunity for solitude within these wilderness areas."
8	This summary table is not intended to account for every resource that may be affected on each alternative. Desert Bighorn Sheep are discussed in multiple locations in sections 3.6 and 4.6.
9	The referenced document prepared by the Cascabel Working Group (DEIS Contributions, 2010) notes two concerns of economic importance that could result from a decline in migratory bird populations: (1) the potential to attract fewer tourists to the area, and (2) a decline in the number of forest birds that eat insects, resulting in impacts on timber harvesting caused by diminished tree growth (pp. 70-71). Although there are many variables that may contribute to potential declines in bird populations throughout the region, there is no evidence that a decline in bird populations due to collisions with transmission line facilities would be significant.
10	The evaluation of scenery is based on the BLM VRM system (Manual 8400). The evaluation of scenery was conducted by several visual resource specialists with experience and training in landscape architecture from viewpoints throughout the project area. The results of the scenery evaluation were also reviewed and approved by the BLM lead VRM Specialist. In the visual inventory process, public lands are given an A, B, or C rating based on seven key factors (landform, vegetation, water, color, adjacent scenery, scarcity, and cultural

2161

10 Mountains, as Class A scenery, not class B. Visually, much of Link C170 does not have merely "some diversity and visual interest." It is, by any standards, spectacular, particularly considering the expanse of natural landscape, largely free of development. The Class B rating should be re-evaluated.

Likewise, most viewers would assign a Class A rating to the San Pedro Valley, particularly when looking east toward the Galiuro Mountains in the area where Subroute 4B crosses the San Pedro. The Class B rating should be re-evaluated.

11 **--Section 3.10.1.2**
Under "Recreation" no mention is made of hunting, a major recreational use along much of Subroute 4B, especially Link C170. Hunting is not confined to "federal, state, and local recreational trails and designated OHV areas." Hunting should be added to this section and factored into analysis of view sheds, economic impacts, traditional land uses, etc.

12 **--Section 3.10.3.3**
Given the vast, natural landscapes free from development (a no more biased phrase than "undeveloped" or "vacant"), crossed by Subroutes 4A and B, this section fails to reflect the importance throughout that region of hunting, backpacking and other outdoor recreational opportunities or their economic importance. Whether the economic benefit occurs within or outside of the study area is irrelevant so long as the benefit is a result of outdoor recreational opportunities available within the study area. This section should be expanded to reflect this.

13 **--Section 3.10.5.1**
Throughout this section and specifically as regards Subroute 4A and 4B, the terms "vacant" and "vacant undeveloped" implies a negative bias toward such lands. The diverse non-human species occupying these lands would not consider them as such. Nor do the rural residents living in these areas. Such characterization represents a strong urban bias. Why are these lands not considered "natural lands" or similar? This bias puts into question the impartiality of the DEIS authors and, as it occurs throughout the DEIS, erodes the legitimacy of the entire document. At a minimum, this bias should be corrected.

14 **--Section 3.10.5.3**
As regards Subroutes 4A and 4B, it is confusing that only recreational opportunities on BLM lands are referred to. Why not recreational opportunities on the other extensive federal and state lands crossed by or in proximity to these routes?

15 **--Section 3.10.5.8**
A section on planned land use implies that this is an important consideration. Why then is there not a similar section recognizing the equally important traditional land use?

3

2161	Comment Response
10	modifications). These features are rated on a comparative basis with similar features within the physiographic province. It is important to note that "viewers" do not just rate landscape units as A, B, or C based on their overall opinion of a particular landscape. Based on the criteria described above, at the project level, it was determined that land crossed by link C170 is a Class B landscape.
11	Hunting and other dispersed recreation activities are considered to occur wherever not restricted. The discussion of land use resources is specific to identified recreation areas, such as trails and designated OHV areas. Viewsheds are described in visual resource analysis (Section 4.9.3) of the DEIS and socioeconomic impacts are described 4.13.4.
12	Hunting, and other dispersed recreation activities are considered to occur wherever not restricted. The discussion of land use resources is specific to identified recreation areas, such as trails and designated OHV areas. Also please see response to Comment No.11.
13	Land uses were categorized for the study corridor inventory according to the categories defined in Section 3.1.10.2, Methods. The definition of this category is as follows: "*Grazing/Multi-Use/Vacant* – all land uses that did not fit under a specific category, or were not specifically designated for a specific use by the responsible jurisdiction or land management agency." (DEIS, p. 3-216) This category includes privately owned lands, as well as state or federal (public) lands leased for grazing; the underlying description is "vacant" because they do not contain any other specified land use and are generally undeveloped, although they do contain utilities and range improvements such as tanks and fences.
14	Dispersed recreation activities are considered to occur wherever not restricted. The discussion of land use resources is specific to identified recreation areas, such as trails and designated OHV areas. Recreation on other federal and state land is generally dispersed and takes place in undesignated areas.
15	Traditional land uses are discussed in Section 3.8 of the DEIS, Cultural Resources.

2161

16 **--Section 3.12.4**
It is not clear what proximity to the Project is required for consideration of lands with wilderness characteristics. Must such lands be actually crossed by the project? Within the study area? Other? This section requires more detailed explanation.

--Section 3.12.4.3
This section is too dismissive of the wilderness characteristics of lands crossed by Link C170 in the area of the Galiuro Mountain divide. These lands have important wilderness characteristics and are in close proximity to designated Wilderness Areas. Closing and decommissioning several primitive roads in this area would preserve the wilderness characteristics of this portion of Link C170. See Section 4.12.3.1 comments below.

17 **--Section 3.13.9.3**
This section focuses on population centers while ignoring the vast landscapes crossed by Subroutes 4A and 4B which provide economic livelihood for ranchers, hunting guides, etc.

18 **--Table 3-74**
Should include electric field data to allow comparison with electric fields in Table 3-75.

19 **--Section 4.2.2.5**
Mitigation Measures: No mention is made of how speed limitations will be enforced. Merely posting speed limits is not an effective method of enforcement. It is not reasonable to assume that speed limits will be observed without enforcement, thus enforcement provisions should be explained. Or, this measure should be deleted as a mitigation measure.

20 **--Section 4.6.2.2**
Large Mammals: This section includes the statement, "Development of new access roads required for the Project may have indirect impacts resulting from increased recreational access in these areas." Is this an acknowledgement that SE 6 (gates or other road blockage methods) is not likely to be effective? This is particularly important on the Galiuro Mountain divide area of Link C170 as this will be under heavy OHV pressure as noted elsewhere in these comments. Clarification is needed here.

21 **--Section 4.6.4.3**
Noxious and Invasive Weeds: This section should acknowledge the high potential for noxious and invasive weed introduction along service roads, particularly in the Galiuro Mountain area crossed by Link C170, as these roads will likely receive heavy OHV pressure, despite application of SE 6.

4

2161	Comment Response
16	The presence of roads and other modifications reduces the quality of these areas for consideration as lands with wilderness characteristics. An inventory of lands with wilderness characteristics was based on a 1000 foot buffer (500 feet on each side of the reference centerline) per direction from the AZ and NM State Wilderness Leads. This was done to identify potential lands with wilderness characteristics allowing flexibility in the project description (i.e., location of the project).
17	Section 3.13.9 includes a summary of characteristics for each of the subroute groups, and identifies the "key similarities and differences between various subroutes" (pp. 3-296). The importance of economic livelihood for ranchers and hunting guides is discussed, including economic contributions of agriculture and tourism/recreation in the DEIS, Section 3.13.6.1.
18	The electric field data are provided in the DEIS, Section 4.15.3.2 for comparison with the potential Project effects (pp. 4-230-4-231).
19	The detailed description of monitoring, including enforcement of speed limits, will be provided in the Final Plan of Development, based on specific road locations.
20	The effectiveness of SE 6 (selective mitigation relating to road closures) would depend on the final access plan, which will include identification of roads to remain open, be gated, or be permanently closed and rehabilitated. Road closures would depend on future maintenance needs, as well as the preference of the landowner or land management agency. This will be presented in the final POD.
21	Additional details regarding mechanisms that aid the spread of noxious weeds are presented in the Noxious Weed Management Plan, Appendix B2 of the POD. However, this discussion has been expanded in the FEIS.

2161

22 --Section 4.6.4.4
Large Mammals: Regarding prevention of collision risk to large mammals by implementation of speed limits, see Section 4.2.2.5 above.

23 *Fish*: Impacts to fish species in Aravaipa Creek due to increased soil erosion caused by heavy OHV use of service roads along Link C170 should be analyzed. As noted earlier, this is particularly the case where Link C170 crosses the Galiuro Mountain divide area. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 74-77.

24 --Section 4.6.4.5
Desert tortoise: "The total level of road use would determine the overall level of impact on Desert Tortoises." Again, given the likelihood of high OHV pressure on post construction service roads, impact to Desert Tortoises may be high. Experience has shown that SE 6 is largely ineffective. This issue should receive further analysis. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 46-49.

25 *Arizona Striped Whiptail*: "Presence of a biological monitor…may minimize direct impacts to lizards…" The efficacy of this method appears highly indefinite and needs clarification so as to gauge its effectiveness.

26 *Native fish species in Aravaipa Creek*: See Section 4.6.4.4 comment above.

--Section 4.6.4.6
27 *Aravaipa Wilderness*: The assertion that, "There will be no direct impacts on the Aravaipa Wilderness, and potential indirect impacts primarily to surface waters would be mitigated…" reveals an inadequate understanding of probable back country pressures throughout drainages south of Aravaipa Creek due to increased OHV traffic on Project service roads and on other primitive roads accessed by service roads. These effects primarily include increased erosion. See Table 2-11 comments and 4.6.4.4 comments above.

--Section 4.6.4.7
28 *Pronghorn Population in the Sulphur Springs Valley*: Fire is increasingly used for range improvement. The logistical barrier and safety hazard presented by the Project with respect to controlled burns may therefore become significant. The limitation of an important, natural method of range improvement deserves further examination.

29 Erosion control, vegetation preservation, noxious weed management and access control are not adequately addressed by standard or selective mitigation methods. See Table 2-11 comments above. Also see DEIS Contribution For

5

2161	Comment Response
22	See response to Comment No. 19.
23	The referenced sentence acknowledges that selective mitigation measure 6, regarding the gating or closure of access roads, may not be implemented in all locations and would primarily be at the discretion of the landowner or agency.
24	The potential exists for the introduction of noxious or invasive weeds by recreational traffic throughout the Project area. Measures to prevent or treat the spread of invasive plants within the right-of-way would be implemented according to the Noxious Weed Management Plan, Appendix B2 of the POD.
25	See response to Comment No. 19.
26	The DEIS notes that erosion may occur to some degree from any source of ground disturbance. The extent to which this would occur along Link C170 would depend on the final access road plan, including areas selected for closure or reclamation. However, the siting of Link C170 attempted to avoid direct paths for sediment to travel into portions of streams supporting listed fish. The upper portion of Turkey Creek, approximately 0.5 miles from the head of the drainage, would be spanned by a portion of Link C170, and is crossed by an existing access road that may require improvement. All additional ground disturbances would occur on ridgelines or in other upland areas in the Turkey Creek watershed. Additional ground disturbance in the Aravaipa Creek watershed would occur in tributaries such as Fourmile Creek and Road Canyon, providing buffering from sites supporting native fish. Existing access is present within the floodplain of Aravaipa Creek itself. The DEIS (Section 4.6.4.5, 4.6.5) acknowledges that sediment may be transported substantial distances, but this potential would be minimized through standard mitigation measures and the siting described above.
27	The DEIS (Section 4.6.4.5) acknowledges that opportunities for OHV traffic in some areas within the range of the Sonoran Desert Tortoise may be increased. However, much of the BLM preferred alternative would benefit from existing access once it reaches high-quality Sonoran Desert Tortoise habitat. For any alternative, the creation of new public access is acknowledged to potentially affect the species.
28	The potential for the Project to affect fire use as a land management tool is acknowledged in the DEIS (Section 4.7.3.3). However, the degree of effect would depend on site-specific conditions at the time a fire may be planned. The presence of a transmission line typically constrains but does not necessarily preclude fire use in grasslands.
29	See response to Comment No. 23.

29 Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 46-49).

30 *Wildlife Linkages*: The Galiuro Mountain divide serves as an important wildlife linkage between the Galiuro and Aravaipa Wilderness Areas. This is particularly true for desert bighorn sheep populations in Redfield Canyon and Aravaipa Canyon. Increased back country OHV use particularly due to the previously noted ineffectiveness of SE6, will likely result in degradation of this linkage where it is crossed by Link C170.

--Section 4.6.5.4

31 *Desert bighorn sheep*: This section does not address the potential impacts of Link C170 on desert bighorn sheep in the Galiuro Mountain area, nor does it offer mitigation measures specifically addressing these impacts. Although this subspecies of desert bighorn sheep is not listed as threatened or endangered, it is nonetheless a high profile species which may be adversely affected by Link C170. Given the importance of this species, potential impacts and mitigation measures should therefore be addressed. See DEIS Contribution For Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley, September 27, 2010, P. 87.

Native fish species in Aravaipa Creek: See Section 4.6.4.4 comments above.

Pronghorn: See Section 4.6.4.7 comments above.

Arizona Striped Whiptail: See Section 4.6.4.5 comments above.

--Section 4.9.3.3

32 See Section 3.9.3.3 comments above.
Subroute 4A, Recreation: This section neglects to mention recreational users including hunters, hikers and horse packers in the surrounding Santa Theresa, Aravaipa and Galiuro Wilderness Areas and the Coronado National Forest. This should be corrected. Visual impacts for recreational users will be high in some parts of the Aravaipa Wilderness and Coronado National Forest in the vicinity of Link C170.

--Section 4.10.5.3

33 *Subroute 4A*: "There are no moderate, high-moderate, or high impacts for existing or future land uses." This statement neglects the considerable impacts to backcountry users along route 4A, especially along Link C170. (See Section 4.9.3.3 comments above.) Outdoor recreation constitutes a land use and should be addressed in this section.

2161	Comment Response
30	See response to Comment No. 23.
31	Fire use is also discussed in Section 4.7. Transmission lines may limit, but not necessarily preclude, the use of fire as a management tool. The determination whether or not a prescribed fire could occur would depend on site-specific conditions at the time the fire may be planned, and cannot feasibly be predicted.
32	Comment noted. Please see response to comment #7.
33	The discussion of impacts to land use resources includes designated recreation areas. Dispersed recreation is considered to occur wherever not restricted by other uses or restrictions.

2161

34 **--Section 4.10.5.4**
"Based on results of the preceding analysis, significant impacts are not expected…" See comments regarding Section 2.3.2.3 through Section 4.10.5.4, inclusive.

35 **--Section 4.12.3.1**
With regard to wilderness areas and lands with wilderness characteristics, a 3 mile view metric is insufficient. It fails to address the greater than 3 mile visibility of service roads and below power line vegetation cuts. Also, noise pollution during construction and maintenance activities, particularly helicopter caused, is not addressed. Also not addressed are OHV impacts to Aravaipa Wilderness due to unauthorized access via Project service roads.

36 Furthermore, this section fails to address the effect on the adjacent Araviapa and Galiuro Wilderness areas. Part of the function of wilderness areas is to preserve natural habitat. Wildlife species in particular are not bound by wilderness boundaries. Project construction impacts, unauthorized service road use and noise pollution on Link C170 at the Galiuro Mountain crossing will negatively impact this ridge-top wildlife corridor.

--Section 4.12.3.3

37 *Subroute 4A*: The assumption that a major powerline corridor located less than 3 miles from a wilderness boundary is highly subjective. Most wilderness visitors would object to such close proximity to a wilderness area. The implicit suggestion that they could simply go elsewhere within the wilderness reflects yet another bias on the part of the DEIS authors that further undermines the legitimacy of the DEIS.

Subroute 4B: See Section 4.12.3.1 comments above.

--Section 4.12.5.3
See Section 4.12.3.1 and 4.12.3.3 comments above.

--Section 4.13.4.3

38 This section fails to address the economic impacts from recreation to the lands crossed by Subroutes 4A and 4B. Recreational visitors to Aravaipa Canyon, the northern Galiuro Mountains and Klondyke frequently choose to visit this area because of its untrammeled remoteness. Such areas and the recreational opportunities they offer are being steadily eroded. The Project would contribute to this erosion by bisecting the second largest landscape remaining in Arizona that is still essentially free of development. This section should thus include analysis of economic impacts to recreational land use as a result of the Project.

Route Group 4: Fails to mention recreation-related job losses caused by Project Subroutes 4A and 4B. Recreational land users are attracted to the northern Sulphur Springs Valley and Aravaipa Creek watershed in large part because this

7

2161	Comment Response
34	Comment noted
35	The visual resource assessment methodology was reviewed and approved by the BLM. The visual resource impacts disclosed in the DEIS follow this BLM approved methodology. Impacts were assessed from wilderness areas looking towards the proposed project (see Map Volume) and were disclosed in the DEIS (see Section 4.12.3.3).
36	The DEIS discusses that the Project would result in disturbance to wildlife throughout Section 4.6, but this would be mitigated to the extent practicable through seasonal avoidance, a selective mitigation measure. Road closures may be implemented, as discussed in the response to Comment 23.
37	Impacts were assessed from wilderness areas looking towards the proposed project (see Map Volume) and were disclosed in the DEIS (see Section 4.12.3.3). The intent of wilderness designations is to protect the characteristics that have been inventoried within the wilderness boundary based on specific criteria identified within the Wilderness Act (1969).
38	Although new access roads would not be provided for public use, it has been suggested that recreational use (including hunting, hiking, off-road vehicle activities, etc.) within the area would increase if new or improved access to the transmission line corridors were to be provided. However, there is no evidence that recreational use or visits to the area would decline, or increase, as a result of construction and operations of the proposed project, as stated in Section 4.13.4.5.

2161

38 landscape retains its wild, largely natural characteristics and is essentially free from development. By bisecting this area, Subroutes 4A and 4B would reduce the appeal of this landscape, thus incurring economic impacts. If these impacts cannot be quantified, they should at least be acknowledged.

--Section 4.13.4.5
"The Project would not substantially change the use of recreation areas or trails, and the number or type of recreation users would not be likely to change." As regards Subroutes 4A and 4B, see Section 4.13.4.5 comments above.

39 **--Section 4.14**
This section fails to acknowledge the fact that the negative impacts (aesthetic, economic, etc.) are borne disproportionately by rural populations, whereas the energy delivered by the Project primarily benefits large population centers and Project investors. Furthermore, aside from temporary construction jobs, rural populations receive no economic benefit from the Project. This is a gross environmental (and economic) injustice that is not addressed in the DEIS.

40 **--Section 4.15.2.1**
Audible noise: As regards Link C170, see Section 4.12.3.1 comments above.

--Section 4.17
41 *Cumulative Effects Analysis*: This section fails to acknowledge or analyze the cumulative effects of increased population in the Project Study Area. The Project, by increasing the electrical transfer capacity to major population centers in the southwest, particularly the Phoenix area, serves to encourage population increases in those areas. Thus, the Project encourages increased electricity consumption and generation. Much of this generation will be fossil fueled, as backup is needed for renewable energy, especially wind energy. Furthermore, the wind generation areas the Project proposes to link to are seasonally out of phase with demand in the energy markets it proposes to connect to. This will encourage significant fossil fuel generated electricity on SunZia lines. See http://cascabelworkinggroup.org/Rjobs13.html and http://cascabelworkinggroup.org/Rjobs14.html

--Section 4.17.3.2
42 This section fails to analyze the cumulative impacts of two future projects likely to parallel significant portions of Subroute 4A or 4B, particularly Link C170. NEPA approval of Subroute 4A or 4B, coupled with the construction of a major infrastructure project, effectively constitutes the opening of a new utility corridor. As such, approval of this route is likely to substantially increase the likelihood of its use for future infrastructure projects.

Given the dramatically increased production of natural gas, demand for new pipelines is likely. The presence of threatened and endangered fish species in Hot Springs Canyon in close proximity to the El Paso Gas Co. pipeline suggests

8

2161	Comment Response
39	As indicated in Section 3.14 in the DEIS, EO 12898 (U.S. Department of Housing and Urban Development [HUD] 1994) requires federal agencies to address high and disproportionate environmental impacts on minority and low-income populations. Should potentially significant and adverse impacts attributable to the proposed Project fall disproportionately on these populations, environmental justice impacts would result. As noted in Section 4.14, Table 4-20 of the DEIS, High impacts occur in areas where the Project could create direct, long-term, and significant impacts to existing environmental justice populations. The methodology of assessing impacts to environmental justice populations was applied consistently within rural and urban areas. As stated in Section 4.14.2, although the type of impacts to rural and urban areas would be similar in most cases (e.g., the condemnation of a residence), the level of impact was also determined according to the proximity and density of the environmental justice population to the potential impact. For example, rural residential properties could experience moderate impacts from a distance of two miles of the transmission lines, while a residence just outside a mile from the lines could experience low impacts because of the existing lines or the presence of other structures commonly associated with a built urban environment. For these reasons populations within a 3-mile buffer are more likely to be affected by the Project (higher impacts occur up to a distance of three miles; noise and visual impacts dissipate at greater distances). Census tracts provide the most meaningful geographic unit to measure population components within the area of potential effects in rural areas, but the impacts are assessed according to inhabited structures within proximity to the Project corridor's centerline. The results indicate higher and disproportionate impacts to urban areas, due to higher population densities in proximity to the Project.
40	Noise resulting from construction of the transmission lines would be temporary and may be audible; however, it is unlikely that operational noise would be discernible to recreation users within wilderness areas near C170.
41	As stated in the DEIS, Section 1.4, "the Applicant's (Project) objectives are to increase transmission capacity, thereby relieving existing transmission congestion and allowing additional electricity to be generated and transported to western power markets and load centers in the Desert Southwest (p. 1-5). While additional electricity will be needed to serve future population growth, and the SunZia project could serve to provide a portion of that electricity to meet future demand, the Project would not cause or encourage population growth within the study area.
42	The cumulative effects analysis includes projects that are reasonably foreseeable, or as defined in the BLM NEPA Handbook (Section 6.8.3.4) "for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends" and "must be concrete enough that consideration of its effects would be useful to the decision-maker" (DEIS, Section 4.17.3, p. 4-246). Other future infrastructure projects within the Subroute 4A or 4B corridors, such as a pipeline or additional 500 kV transmission line, have not been identified.

42 that route will not be suitable for future pipelines. Subroute 4A or 4B would provide a likely alternate for such projects.

Given complications with Case 23, Tucson Electric Power's conceptual Tortolita to Winchester 500kV transmission line could become a Tortolita to Willow 500 kV line following Subroute 4B.

The cumulative effects of such projects include but are not limited to: habitat fragmentation, erosion and other effects on threatened and endangered species, including fish species in Aravaipa Creek, increased OHV use of service roads and increased disturbance to desert bighorn sheep populations.

All of these cumulative impacts should be analyzed for both of the above mentioned future projects.

43 **--Section 4.17.4.2**
Global Climate Change: See Section 2.3.3.3 comments and Section 14.7 comments above.

44 **--Section 4.17.4.3**
Soil Resources, Operation: As regards Link C170, see Table 2-11 comments, Section 4.6.4.4 comments and Section 4.6.4.7 comments above.

45 **--Section 4.17.4.6**
Biological Resources, Conclusion: "…cumulative impacts would be reduced in most cases when linear utilities, including the proposed Project, are collocated." This is further argues against Subroutes 4A and 4B, which would involve the longest sections of new utility corridor among the Route Group 4 alternatives.

Also, as regards Subroutes 4A and 4B, see Section 4.17.3.2 comments above. Future infrastructure projects are likely to use Subroutes 4A or 4B subsequent to construction of the Project along either of these routes. Cumulative impacts to visual resources are therefore likely to be high.

46 **--Section 4.17.4.7**
Wildland Fire: As regards Subroutes 4A and 4B, see section 4.6.4.7 comments above.

47 **--Section 4.17.4.9**
Visual Resources: As regards Subroutes 4A and 4B, see Section 4.17.3.2 comments above. Future infrastructure projects are likely to use Subroutes 4A or 4B subsequent to construction of the Project along either of these routes. Cumulative impacts to visual resources is consequently likely to be high. This section should be expanded to reflect this.

2161	Comment Response
43	Comment noted
44	Please refer to response to comment No's. 22 and 29.
45	Please refer to response to comment No. 42.
46	Please refer to response to comment No. 28.
47	Please refer to response to comment No. 42.

2161

48 **--Section 4.17.4.10**
Land Use and Recreation Resources: Despite the title of this section, almost no reference is made to cumulative effects as regards recreation resources. It is highly probable that future infrastructure projects would use Subroute 4A or 4B subsequent to Project completion. This would increase the cumulative effects of the Project on Recreational use, particularly along Link C170. This section should be expanded to reflect this.

49 **--Section 4.17.4.12**
Wilderness…, Construction and Operation: "Operation of the Project would reduce the size of the inventory unit, as areas where the Project would cross would no longer be eligible for wilderness designation." Subroute 4B is 133 miles long, 111 miles of which constitute a new utility corridor. Much of the 111 miles of new corridor will bisect the second largest expanse of undeveloped landscape in Arizona and New Mexico.

Within that area are 3 federally designated Wilderness Areas (Santa Theresa, Aravaipa and Galiuro). Adjacent to these Wilderness Areas are lands having wilderness characteristics. Among the most outstanding is the Winchester/Galiuro/Aravaipa complex which constitutes one of the longest undeveloped upland reaches in Arizona, stretching more than 100 miles in a south-southeast to north-northwest orientation. Link C170 would bisect that unbroken complex, fragmenting yet another of Arizona's diminishing wild lands.

50 **--Section 4.17.4.14**
Environmental Justice Conditions: Negative impacts of future infrastructure projects expected to use Subroute 4A or 4B subsequent to Project completion will be borne primarily by area residents. These impacts may include, but are not limited to, degradation of visual, recreational and economic opportunities. See Section 4.14 comments above.

Operation: Further evidence of an urban bias is evidenced by the statement, "For properties that experience degradation of scenic views, devaluation could take place." No mention is made of mitigation for property devaluation caused by the proposed Project and other infrastructure projects that can be expected to follow subsequent to the establishment of a new utility corridor along Subroutes 4A or 4B.

10

2161	Comment Response
48	Please refer to response to comment No. 42.
49	There are existing roads within this area that have altered natural conditions and thus wilderness characteristics. There is no documentation identified that provides guidance for managing the three wilderness areas as a single complex.
50	Please see response to Comment No. 39.

From: Norm Meader
To: BLM_NM_SunZia_Project; Garcia, Adrian A
Cc: Alberta Charney; Anthony Popp
Subject: Comments on SunZia DEIS Economic Reports
Date: Friday, August 17, 2012 12:28:17 PM
Attachments: CWG SunZia Economics Cover Letter.pdf
CWG SunZia Economic Reports.pdf

Dear Adrian,

Attached are a review and two reports that I have done for the Cascabel Working Group that address the SunZia Economic Impact Assessment and EIA Supplement: Impacts of Potential Renewable Generation Facilities, now included in the SunZia Draft Environmental Impact Statement as Appendix G1. I am also including a review of Appendix G2 and references to these appendices within the main DEIS text.

I am sending this message to both the BLM's standard SunZia email address and your personal email address because the Environmental Planning Group cannot adequately respond to my comments themselves. I assume that all submittals that go to NMSunZiaProject@blm.gov go to EPG, and you may not see them. I therefore need to alert you to this.

In January I submitted two reports critical of the reports now included in Appendix G1 and asked that they be incorporated into the DEIS if possible. Because they were not included, I am submitting them here again for BLM review and inclusion in the revised or final draft environmental impact statement.

These economic studies contain many misleading statements and calculations and require revision to be included in the final environmental impact statement. EPG, however, lacks the expertise to revise them, other than to make editorial changes, and the authors of these reports will need to address public comments and make revisions as required for the BLM. It is imperative, I believe, that the BLM also contract with a professional outside economist to professionally review these reports and make recommendations. These reports have not been professionally reviewed and as such do not yet meet publication standards, making this type of review essential. No professional journal would publish this work without such a review.

I am copying this message and my review and reports to Alberta Charney of the University of Arizona and Anthony Popp of New Mexico State University, the two lead authors of Appendices G1 and G2, so that they have my comments and understand this situation. The SunZia DEIS is a legal document and as such may be legally challenged. It is thus important that Dr. Charney and Dr. Popp strive to meet the editorial standards of their discipline. With the other demands upon their time, I understand how difficult it may be for them to do this. The shortcomings of their reports need to be addressed somehow, however, and at the very least, my comments should be bound with their reports to help explain them. I understand that my own comments may contain errors or misunderstandings.

Sincerely,
Norm "Mick" Meader
Co-Chair, Cascabel Working Group
(520) 323-0092
nmeader@cox.net

Attachments: 2

cc: Dr. Alberta Charney, University of Arizona
Dr. Anthony Popp, New Mexico State University

2162

Cascabel Working Group
6590 N. Cascabel Road
Benson, AZ 85602
Submitted by electronic mail and certified U.S. Mail August 17, 2012

Mr. Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, AZ 87501
NMSunZiaProject@blm.gov

Dear Adrian:

Attached are two separate analyses that I have done on the SunZia economic assessments included in Appendix G1 of the SunZia Draft Environmental Impact Statement, "SunZia Economic Impact Assessment and EIA Supplement: Impacts of Potential Renewable Generation Facilities." This appendix contains two separate reports, one on the economic impacts of building the transmission project itself and the second on hypothetical renewable generation facilities that might be built in the area of SunZia.

I submitted both of my reports to you in January 2012 for inclusion in the SunZia DEIS if that were possible. Since they were not included, I am submitting them again for formal review and inclusion in the EIS by the Bureau of Land Management. These reports document serious deficiencies in both reports. I herein also offer additional comments on references to these reports in the SunZia DEIS as well as on Appendix G2, a new study that attempts to assess the economic impacts of constructing SunZia along individual route segments considered in the DEIS.

The reports included in Appendix G1 need significant revision and recalculation in places to be worthy of inclusion in a federal environmental impact statement. If the authors of these reports cannot correct and revise them to meet publication standards and if they are not removed from the DEIS, it is imperative that my reports be bound with them to explain their weaknesses and errors. Not doing this will result in a gross misrepresentation of the economic potential of the SunZia project for Arizona and New Mexico.

Thank you for including this.

Sincerely,

Norm "Mick" Meader

Norm "Mick" Meader
Co-Chair, Cascabel Working Group
(520) 323-0092
nmeader@cox.net

2162

SunZia Economic Impact Assessment Appendices G1, G2 and References to Them

Introductory Overview Comments

Lack of External Review

1 As a fundamental criticism, this work was done primarily by interns and graduate students, and it has never been professionally reviewed. It has many glaring deficiencies because of this. I worked for more than 20 years at the University of Arizona on manuscripts with faculty, graduate students, and editors, and from that experience I know that the main report, "SunZia Economic Impact Assessment," could not be published without revision. The accessory report, "EIA Supplement: Impacts of Potential Renewable Generation Facilities," would be summarily rejected for publication because it is so deeply flawed. The authors would have to completely redo it before any journal would reconsider it for publication.

For any work like this to be included in a published government document intended to be objective and well researched, it needs to be reviewed by outside reviewers, preferably three, and then the authors need to revise it according to reviewer recommendations in order to bring it up to professional standards. While the comments that I provide in the two attached reports can help with this, I am not a professional economist and cannot provide the in-depth analysis that economists can. This additional analysis is especially critical for tax revenue calculations, which I did not investigate.

SunZia paid the University of Arizona $105,300 for these studies, and it presumably paid New Mexico State University a similar amount. SunZia then used these studies to sell the project to both policy makers and the public. The numbers that SunZia has used are in many places erroneous and, as presented, highly misleading. The Bureau of Land Management has then taken these studies directly from SunZia and incorporated them into the DEIS without reviewing or questioning them, portraying them as an objective assessment of the project's economic potential. *It is essential that the BLM obtain outside professional reviews of this work to maintain objectivity and the BLM's independence from the project proponent*. Again, much of this work was done by graduate students as part of student training, and their advisers did not carefully and critically review it using the editorial standards of the economics profession.

Ramifications of Using the EIA Supplement for Cumulative Effects Analysis

2 Of particular relevance and concern here is the use of the energy development scenario in the "EIA Supplement: Impacts of Potential Renewable Generation Facilities" to determine cumulative effects in section 4.17.3.3 and subsequent sections. *The scenario used in this supplement for new generation facilities that might use SunZia is highly unrealistic and not a reasonable basis for projecting actual impacts*. While this project provides the potential to facilitate renewable energy generation and while it is reasonable to assume that some will occur in response to the project, this project also passes through prime natural gas generation territory. Expansion of this non-renewable generation is inevitable and likely to be significant, yet no analyses are projected for a scenario that realistically incorporates it. This is especially important for greenhouse gas calculations.

1

2162	Comment Response
1	Senior technical review was conducted for all resource studies included in the DEIS by the BLM interdisciplinary team. The social and economic analysis was reviewed by Joshua Sidon, BLM economist.
2	As stated in Section 4.17.3.3 of the DEIS "These development scenarios are offered as analytical tools, and not meant to imply that there are currently specific or known cumulative effects from generators." While other forecasts could be provided, for example a 50 percent renewable energy development component, or a scenario that reduces coal-fired energy production. However, because of the uncertainties involved in predicting energy development in the future, the RFF actions were used as a basis for the cumulative resource analysis. It would not increase the accuracy of the predictions. The Energy Development Scenarios were identified based on the criteria described in Section 4.17.3.2 of the DEIS, and included "Reasonably foreseeable future refers to future actions or projects "for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends" (BLM NEPA Handbook at § 6.8.3.4.). To constitute a reasonably foreseeable future action, a project must be concrete enough that consideration of its effects would be useful to the decision-maker." As stated in Section 4.17.4.13 of the DEIS, the economic forecasts addressed RFFs (in a ten year planning period) as well as a potential generation projects over the life of the SunZia Project (50 years).

2 A cumulative effects analysis that assesses several mixes of renewable and non-renewable generation is needed to determine potential impacts. Using a mix of 50% renewable and 50% nonrenewable generation is one reasonable mix to consider and include. This is a far better scenario to use for modeling the end use of SunZia. *The fundamental importance of an environmental impact statement is to assess actual impacts as closely as possible, not to accommodate and evaluate a highly idealized and unrealistic scenario chosen by the project proponent to sell the project.*

Problems with Appendix G2

Editorial Considerations

3 Appendix G2 is a new study that was done subsequently to the Economic Impact Assessment and Supplement. It contains numerous flaws and omissions that should be addressed. Most importantly, *the appendix contains no descriptive title or introduction* that explains what it contains and is meant to address. By looking at the tables, one can deduce that it assesses the economic impacts of the project by route segment and by county for the final alternatives considered for the project, but the appendix does not state this up front. *The appendix also contains no map of the segments being considered to help explain the text and tables*. While one can page through the main DEIS to find maps to match the calculations, this is an unnecessary burden to place upon the reader when replicating these and including them here would allow the reader to easily determine the locations of route segments.

The economic figures in this appendix were presumably calculated using the same assumptions used in the primary Economic Impact Assessment study included in Appendix G1 and therefore should be consistent with it. *The appendix does not explain what "Option A" and Option "B" are*. Appendix G1 instead uses Scenario 1, Scenario 2, and Scenario 3. Only by paging through the 900+ pages of the main DEIS can one determine that Option A refers to two 500-kV AC lines with 3,000 MW of capacity and Option B refers to one 500-kV AC line with 1,500 MW of capacity and one 5000-kV DC line with 3,000 MW of capacity. *This needs to be stated in an introduction*.

This appendix purports to give income tax revenues by county and labels the tables as such, but then these tables break down these taxes into two categories, (1) Direct Sales Tax (sometimes labeled just "Direct Tax") and (2) Induced Tax. *Neither of these tax categories constitutes income tax*. Both sales tax and income tax are types of induced taxes because they change when an economy's real gross domestic product changes. *Thus these tables should labeled "Average Induced Tax Revenues," not "Average Income Tax Revenues," and within the tables, the term "Induced Tax" should be replaced with "State Income Tax,"* as these tables are specifically tied to Arizona and New Mexico. These tables do not appear to contain federal income tax revenues. All nine tables that give "income tax revenues" are mislabeled.

4 What is most disturbing again is that *the appendix uses the word "jobs" throughout to describe employment when in reality all numbers are job-years or man-years of work*. **None of the numbers contained in this appendix actually refer to jobs even though they are prominently labeled as such**. This needs to be clearly explained in an introduction or footnotes,

2162	Comment Response
3	Editorial changes have been in Appendix G1 and G2 of the FEIS in response to commenter's requests for clarifications.
4	As stated in Section 4.13.2 Impact Assessment Methodology of the DEIS "Employment is measured in terms of number of job years. For example, three jobs could refer to three people working 1 year or one person working for 3 years." Additional notation has been provided in Section 4.13.4.6 of the FEIS to clarify the definition of employment.

4 and the term "job-years" should be used throughout rather than "jobs." Values should be labeled as to what they are.

5 *Also, this appendix does not give the number of years over which this work takes place*. It is important to give this so that the reader can determine the average number of jobs associated with the project. Appendix G1 uses 4 years as the basis for calculating job-years of work, and presumably Appendix G2 does also, but this is not stated. This creates an inconsistency in the Executive Summary because in referencing Appendix G2 to summarize employment, the summary states that these will occur over a 2-3 year period. While a 2- to 3-year construction period is part of the project's timeline, this was not the basis for the original economic calculations. *The Executive Summary should reference the actual length of time used to derive the numbers*.

Apparent Calculation Errors

6 In comparing the economic numbers obtained in Appendix G2 with Appendix G1, it appears *that gross errors have been made in Appendix G2 in calculating employment numbers and the revenues derived from them*. The total job-years of work for the preferred alternative should roughly equal the total job-years of work obtained in the initial economic impact study because the total length of the project remains essentially the same. While the number of job-years of construction labor for Option A (originally Scenario 2) is essentially equivalent (roughly 1950), the number of Other Direct job-years is 200-250 less, and the combined total of Indirect and Induced job-years is about 1,700 less, for an overall reduction in job-years of about 2,000. The total now is around 4,150 vs. 6,200 before. If the underlying assumptions for Appendix G2 are the same as for Appendix G1, these numbers should be nearly the same.

I alerted the study's principal author Alberta Charney to this by email on May 31, 2012, and she said that she would look into it. She did not, however, and I reminded her again on July 7, 2012. She did not respond to my second inquiry. She apparently lacks the time and personnel to isolate the errors and make the necessary corrections. *This appendix should be removed from the DEIS unless these discrepancies can be resolved or explained and the recommendations noted above are incorporated*.

County Economic Impact Projections

7 A particularly egregious problem occurs with the number of jobs attributed to each county for construction of the project. For Example, the tables in Appendix G2 give the total number of jobs for Cochise County as 775 (substation and transmission line construction for route segments 3B and 4C). These are prominently labeled "jobs" without clarification and are attributed entirely to Cochise County. *However, these are the global job-years of work required to complete the project across the county and are unrelated to jobs created in the county*. A similar problem is associated with labor income. This labor income is attributed to the county when it actually occurs world-wide. The actual labor income for Cochise County residents is a tiny fraction of the total given. Direct sales taxes and induced taxes (state income taxes, in reality) are, again, not those derived solely *within and attributable to the county*. *Only property tax revenues are actually attributable to the county as given*.

2162	Comment Response
5	Clarification of number of years over which work takes place has been clarified in Appendix G1 and G2 of the FEIS in response to commenter's requests for clarifications.
6	The differences occur because the sums of county impacts are used as state "totals" in the EIS but the sums of county impacts are necessarily smaller than statewide impacts, which are reported in the EIA. The "totals" given in Tables G2-6 are smaller than the statewide impacts given in the EIA in Tables 4.2.2 and 4.2.3. The numbers in Appendix G2, Tables G2-1 through G2-6, are county-by- county impacts and, as stated in the EIA (pages 35 and 39), the sum of the impacts across counties is less than the state impact for two reasons: 1) there are expenditures by workers and materials purchases made in the state but outside of the county through which the line passes and those have impacts outside of the county, and 2) statewide multipliers are larger than county multipliers because there are smaller leakages from a state than a county. The assumption regarding the portion of construction worker spending in the state (outside the counties where construction occurs) is given on p.33 of the EIA and p. 4-213 of the EIS. Assumptions were made regarding the distribution of expenditures on materials as stated on page 32 of the EIA, based on an estimated construction process. Table headings in Appendix G1 and G2 have been clarified in response to commenter's requests for clarifications.
7	Clarifications have been made in the FEIS in response to commenter's requests for clarifications.

When one converts job-years to jobs, calculates the actual number of people hired in the county for construction (5 average, 8 peak), removes the jobs associated with materials manufactured outside the county (almost all of them), and removes other jobs created outside the county, the total jobs available in Cochise County will be 20-30. County officials, however, have been led to believe that 775 jobs will be created in the county and are using this number for economic projections[1]. *These tables are nearly useless for county purposes if the authors do not determine the actual economic benefit for the counties themselves.* 7

Comments on References to Appendices G1 and G2 in the DEIS

Misrepresentation of Job-Years as Jobs

What is most disturbing about these studies is that *nowhere do they give the actual number of jobs that will be available in Arizona and New Mexico. They do not provide even the most fundamental employment number associated with a project: how many people SunZia will hire for construction*. The only actual employment numbers given in the entire DEIS for SunZia occur on page 4-211 under section *4.13.4.1 Population Impacts*, which is associated with housing. Here it says the following: 8

> The construction of the transmission lines and substations is expected to take place over a span of 2 to 3 years at various locations throughout the study area, and will employ a maximum of 206 workers per transmission line and 55 workers per substation site.

The only actual job numbers given in the entire 327 pages of economic study itself occur in Tables 6.1 and 6.2, and then only a sum of jobs for all four job categories is given for each year. *No where does the SunZia Economic Impact Assessment state how many people SunZia will employ.*

To make clear how deceiving this economic assessment is, I use the following example from page 4-219 of the DEIS:

> The ***total number of jobs that would be created in New Mexico and Arizona*** during construction of the proposed Project would range between 4,555 and 5,310 (including transmission lines and substations between Option A and Option B).

The numbers stated here are actually global job-years of work created throughout the world associated with building the project. They are not jobs, and they do not occur exclusively in New Mexico and Arizona. These include the job-years of work involved in fabricating the steel for the transmission towers and the transmission cable. All of the steel for the transmission

[1] For an example of this misunderstanding, see "SunZia Transmission Project moves to next phase" by Jon Johnson in the June 6, 2012 edition of the *Eastern Arizona Courier*. Graham County officials believe that if SunZia is routed through the county that it will create 810 county jobs. Both the Safford mayor and city manager have accepted these numbers at face value and have worked to bring the project to the county because of them. This story is available at http://www.eacourier.com/news/sunzia-transmission-project-moves-to-next-phase/article_e9df7a9c-af7d-11e1-959f-0019bb2963f4.html. Accessed August 16, 2012.

2162	Comment Response
8	The actual numbers of estimated jobs are indicated in Section 2.4.10.11 and Tables 2-8 and 2-9 of the DEIS. Clarification of the number of jobs was added in Section 4.13.4.3 and Section 4.13.4.6 of the FEIS to indicate that the term for employment is "job years."

2164

From: Norm Meader
To: BLM_NM_SunZia_Project
Subject: Cascabel Working Group SunZia DEIS Additional Comments
Date: Monday, August 20, 2012 3:13:38 PM
Attachments: CWG-Baker-SunZia DEIS San Pedro Valley Response.pdf
CWG-Baker SPRV Biodiversity Metric.pdf
CWG-Baker-San Pedro DEIS Contributions.pdf
CWG-Waldt-SunZia DEIS Additional Notes.pdf

Dear Adrian:

Attached are comments by Daniel Baker of the Cascabel Working Group on the SunZia DEIS related to the San Pedro Valley, many specifically keyed to the preferred alternative route 4C2c. Accompanying Daniel's comments is a copy of our contributions to the DEIS entitled, "Draft Environmental Impact Statement Contributions for Proposed SunZia Transmission Line Routes Traversing the San Pedro River Valley." Daniel references this several times in his comments, and we are providing it here for convenience. Daniel is also including a U.S. Geological Survey two-page publication entitled, "Biodiversity Metrics" with the subtitle "Biodiversity and Ecosystem Services" that specifically compares the biodiversity metrics of the San Pedro Valley to the Rio Grande Valley and the Southwest in general. Daniel references this in his comments as well.

I am also attaching comments by Ralph Waldt of the Cascabel Working Group on specific items in Chapter 3 of the DEIS under "Affected Environments." He is a career naturalist and has some of the greatest biological knowledge of the San Pedro Valley. He noticed several discrepancies related to specific species.

We are Federal Expressing these materials to you also.

Thank you for considering these comments.

Sincerely,
Norm "Mick" Meader
Co-Chair, Cascabel Working Group
(520) 323-0092
nmeader@cox.net

2164	Comment Response
	See following page(s)

2164

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT AND RESOURCE MANAGEMENT PLAN AMENDMENTS FOR THE SUNZIA SOUTHWEST TRANSMISSION PROJECT WITH SPECIFIC REFERENCE TO THE SAN PEDRO VALLEY

DANIEL BAKER, CASCABEL WORKING GROUP

The focus of this review of the DEIS is the environmental impacts of the proposed SunZia project, specifically the 4C2c "preferred route" through the San Pedro River Valley (SPRV). It should be noted however that many of the following comments are relevant to all routes through the SPRV, including those portions of routes 4A and 4B that traverse the SPRV. Many of the points and documentation are referenced in the "Draft Environmental Impact Statement Contributions for Proposed SunZia Transmission Line Routes Traversing the San Pedro River Valley," submitted to EPG and BLM by the Cascabel Working Group in July, 2010. For the sake of brevity that document is here attached (referenced herein as CWG) to preclude repetition, but hopefully its substance when referenced will also be reviewed in concert with these remarks. Also attached is a recent Biodiversity Metrics paper that is referenced several times.

1 **Table 2-1 Environmental Sensitivity Summary:** The categories of the Environmental Sensitivity Summary are too narrow, thereby permitting evaluations based upon less than the sum of the parts. E.g., there may be numerous Cultural and Biological Resources all in close proximity, but so long as ones that are ranked as exclusionary or of high sensitivity are avoided by routes, the impacts can remain low or moderate.

The National Environmental Policy Act, or NEPA, requires analysis of wider concerns, such as the "context," and "intensity" of the proposed area which "must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality." In evaluating the intensity of the proposed action, it requires that, "Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas" are considered (CEQ NEPA Regulation Section 1508.27 [40 C.F.R. § 1508.27.]).

2 This wider focus of NEPA is also reflected in the requirement to consider the cumulative impacts associated with a project (40 C.F.R. § 1508.25). "The point [of a cumulative impacts analysis] is that *a large overview should be maintained toward the magnitude of environmental effects, both of the immediately contemplated action and of future actions* [author's emphasis] for which the proposed action may serve as a precedent or have a cumulatively significant impact." (*Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 88-89 [2d. Cir 1975]).

3 Table 2-1 needs to be inclusive of these wider ecological contexts in order to fairly evaluate impacts to biological resources and comply with NEPA requirements. These wider ecological interests are rarely mentioned throughout the DEIS. When they are, such as the issue of fragmentation, the general theory is acknowledged, but since it is not included as data its importance is minimized and under-evaluated.

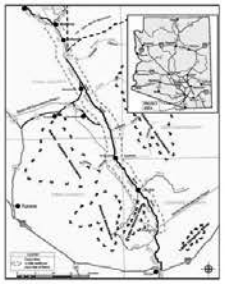
4 A category or table of Unique Biological Resources needs to be added to the specific ones enumerated in order to accommodate this NEPA instruction. The following are all categories, followed by their substantiation for consideration, that relate to an environmental sensitivity evaluation of the SPRV routes and should be included as a table in the data layers:

2164	Comment Response
1	The environmental sensitivity criteria listed in Table 2-1 were applied in the evaluation of opportunities and constraints as a preliminary step to identify alternative corridors during the scoping process, but not for the impact analysis. The overall sensitivity was based on the composite of opportunities and constraints. (Also see DEIS, Appendix A.) After alternative corridors were identified, the impact analysis was conducted according to criteria and methods described in Chapter 4 of the DEIS.
2	Cumulative impacts were not limited to the resource sensitivity categories listed in Table 2-1. Cumulative impacts were analyzed and described in Section 4.17 of the DEIS according to the methods described therein.
3	See response to comment no. 1.
4	As stated above, the resource categories included in Table 2-1 were used to identify opportunities and constraints within a large regional study area. Designated Wild and Scenic Rivers within the study area would be considered a high level of sensitivity, although only Fossil Creek and the Verde River are designated Wild and Scenic Rivers in Arizona. Wildlife corridors, unfragmented landscapes, and areas of high biological diversity have been included in the impact analysis. Areas protected by conservation investments and initiatives have been considered and addressed in the Biological Resources Sections 3.67 and 3.68; and impacts have been documented in Sections 4.6.4.6 and 4.6.4.7 of the DEIS.

2164

4

- **Wild and Scenic Rivers** – The San Pedro River is the last major undammed river in the desert southwest and of international renown. In the United States, only 2 percent of the nation's 5.1 million kilometers of rivers and streams remain free flowing and undeveloped (CWG, pp. 6-8, 34-5).
- **Wildlife Corridors** – The SPRV is recognized as the main Neotropical avian migratory corridor in the Western U.S., and as such is of hemispheric importance. It also functions as an east-west corridor connecting the Rincon-Catalina mountain complex with the Winchester-Galiuro mountain complex within the biologically rich Madrean Archipelago (CWG, pp. 6-8, 36-44).
- **Unfragmented and Intact landscapes** – The Middle SPRV is part one of the largest unfragmented and intact landscapes in the desert southwest, well over a million acres inclusive of no paved roads (CWG, pp. 9-12).
- **Biological Diversity** – The Madrean Archipelago is a hotspot of faunal biological diversity, especially mammalian, avian and reptilian. All of Brown and Lowe's Southwestern Biotic Formations are represented in the Middle SPRV environs, and six ecoregions converge there (CWG, pp. 17-29).
- **Ecological Services** – The SPRV provides greater ecosystem services than the Middle Rio Grande and the Southwest overall on virtually every metric (Biodiversity Metrics EPA/600/F-11/006 May 2011 www.epa.gov). The services of migrating song birds may be as much as $5000 per year for each square mile of forest land (Robinson, CWG, Pp. 72-3).
- **Conservation Investments** – The Lower SPRV has an unusually large assemblage of protected status lands and partners. Roughly 192,000 acres have been protected at a cost of $42,500,000 since the 1970's, uncorrected for inflation; including 144,000 acres for mitigation (CWG, pp. 14-17; See TNC DEIS comments).
- **Conservation Initiatives** – Due to these unique attributes of the SPRV, a number of conservation initiatives are proposed or in process for the Lower SPRV, almost none of which are even mentioned in the DEIS. Since NEPA requires that a large overview be maintained toward the magnitude of environmental effects, both for the immediately contemplated action and of future actions, proposals that are in process need to be included in the data layers in order to evaluate impacts.



Preeminent among these is the U.S. Fish & Wildlife Service's Lower San Pedro River Collaborative Conservation Initiative and National Wildlife Refuge proposal. The Service initiates a Land Protection Planning process to study land conservation opportunities, including adding lands to the National Wildlife Refuge System, when wildlife habitat areas of interest are identified in long term resource plans or are brought to their attention. The Service identified the Lower SPRV as having high quality wildlife habitat values and good habitat restoration

2

2164	Comment Response
	See following page(s)

2164

4 potential where wildlife, such as threatened and endangered species or migratory birds, would benefit from long-term habitat protection and management. The proposal is going through the evaluation, planning, and compliance process, including developing a NEPA compliance document, and has already gone through initial scoping. The Director of the USFWS reviewed the evaluation and approved the proposal, as has the Secretary of the Interior.

5 The "Land Use" data layer in Table 2-1 indicates that National or State Wildlife Refuges are of "high" sensitivity level. The focus area of the Service's proposal would be paralleled by the 4C2c route for over 30 miles, as the map indicates. The DEIS is especially remiss in failing to identify this proposal and the larger impacts entailed.

There are several other conservation initiatives in various phases of implementation including:

- **The Arizona State Land Reform initiative for the Catalina-Galiuro Corridor**
- **The Pinal County Comprehensive Plan**
- **America's Great Outdoors Lower San Pedro River conservation initiative**
- **The ongoing US Forest Service Forest Legacy Program**
- **And the ongoing Sonoran Desert Conservation Plan**

All of these initiatives have open space and habitat connectivity components that will be treated below as the issue of fragmentation is addressed. Acknowledgment of their presence in data layers is required up front so that evaluations of impacts are complete.

While larger in context, none of the above are "soft" categories, but rather they are unique, documentable characteristics and required for evaluation within the NEPA guidelines. Further, due to the "unique, highly valued, complex, historic, or protected resources and significant potential conflict with use," these factors would generally be regarded as of "High Sensitivity."

6 NEPA requires that federal planning activities be documented to insure that environmental, economic or social effects are thoroughly evaluated and disclosed to the public. It appears that from the beginning and throughout, this DEIS complies with the strict legalisms of the Endangered Species Act, but fails to perform the large overview required by NEPA toward the magnitude of environmental impacts. The DEIS thereby fails to perform its function both as a basis for public review and for BLM to make a Record of Decision.

It would be particularly astonishing if one agency of the Department of Interior (the USFWS) should come to the conclusion based upon biological determinations and NEPA of the need for long-term habitat protection and management, and another agency of the DOI (the BLM) should come to the conclusion that a major utility corridor adjacent to and through the same area is appropriate. If BLM makes such a determination, it will be, from a legal standpoint at any rate, because the constraints and dictates of NEPA were not appropriately addressed in this DEIS document.

7 **2.3.2.3 Route Group 4: Subroute 4C2c**: As noted, Subroute 4C2c is 161.2 miles in length, of which approximately 90 miles parallel existing utility corridors. However, it is the "40.3 miles of new access" (cf. Table 2-15), primarily subroutes C201, C441, and C450 (cf. Figure 2-6) through the SPRV that are at issue. Since this portion creates an entirely new corridor (contrary to the directive of collocating infrastructure) and the SPRV is a highly sensitive resource (see above),

3

2164	Comment Response
5	As noted, national or state wildlife refuges were considered as a high sensitivity, and therefore the alternative corridors were sited to avoid crossing refuges. While there are several initiatives to establish new refuges or conservation areas, none have been established. However, regional and comprehensive land use plans (Pinal County, Pima County/Sonoran Desert, etc.) that have been adopted and are being implemented by local jurisdictions have been included in the baseline studies, and the Project's effects on such plans have been evaluated in the DEIS.
6	The magnitude of environmental impacts to biological resources have been evaluated in Section 4.6 of the DEIS, including impacts to sensitive vegetation and wildlife as well as federally-listed species and habitats.
7	The estimated amount of potential ground disturbance resulting from new access has been calculated using a consistent method for all alternative transmission line corridors included in the DEIS analysis. As stated in Section 2.4.10.1 (Table 2-7, p. 2-73), the assessment of access levels was primarily based on the evaluation of existing conditions (i.e., distance from existing roads, road conditions) and terrain (slope) for each one-tenth-mile long corridor segment to avoid skewing the ground disturbance estimates. The total amount of potential acreage of disturbance was calculated for each subroute segment and based on typical road construction specifications, which provides an average value for comparative purposes.

2164

7 this section should be broken out as a separate route. By virtue of including this highly sensitive resource in the midst of miles of low impact areas, all figures re impacts are deceptively skewed. E.g., Figure 2-7 (see below) indicates that areas not requiring new roads and of low slope percentage (likely much of the 90 mile existing infrastructure area) have only 1.6 acres of ground disturbance per mile, whereas areas requiring new access with high slope percentages (likely much of the 40 mile SPRV route through rough country) can have up to 6.7 acres of ground disturbance per mile of new road. Since the SPRV portion of 4C2c is only one quarter of the total, all estimates of impact, which are averaged over the total length of the 4C2c route, are skewed toward the low end. This is an unacceptable and deceptive manner of skewing impacts to what is possibly the most controversial traverse of the entire SunZia project.

8 **Page 2-45** notes that the final Plan of Development (POD) will only be appended after the right-of-way grant and is not referenced in the current DEIS. Among other issues that would influence review figures (see below), **Table 2-4** states that access and spur road widths will be specified in the POD and are dependent on terrain and construction specifications for selected transmission line routes. Since "this project description is the basis for the analysis of impacts in Chapter 4," all of those figures are meaningless as a way for the public or the BLM to analyze impacts to particular routes. Those figures are critical for a proposed new infrastructure corridor through the highly sensitive SPRV. In concert with the methodology noted in 2.3.2.3 above, this appears to be another method of obscuring actual impacts.

9 **Table 2-5** Indicates that access roads with have a minimum of 24 feet and a maximum of 28 feet in width, that the road surface will be gravel, and that it would be graded with a heavy road base to support larger equipment. Much of those standards, especially with regard to a gravel surface and heavy road base, are greater than those extant on the "primitive" (County designation) Cascabel-Redington Road. Thus new access roads could be greater in impact than the current road, and furthermore, the Cascabel-Redington road may well have to be upgraded in order to meet these standards to meet access points. It appears that the fragmenting impact of new and upgraded roads could be extensive. Again, without a POD the DEIS is inadequate to determines such impacts.

Section 2.4.9.1: It is noted that "The terrain, separation criteria, and final design will determine the corridor centerline and total width of the right-of-way. ...Once the BLM has issued a ROD, the right-of-way application would be finalized with Project design details and right-of-way width." "Access roads would be identified in the POD and approved by the BLM before construction." Again, lacking the information to be included in the POD but not the DEIS – e.g. the location and number of access roads, location and spacing of transmission line towers, location of intermediate substations, and many other particulars – makes it impossible to review and analyze impacts to the new infrastructure corridor proposed through the SPRV. Without this information the DEIS is insufficient as a basis for agency decision making and for public review as required by NEPA.

2.4.10.1 Access Roads: It is stated that existing paved and unpaved access roads would be used to the extent practicable, and that because access roads must be sufficient to bear the weight and endure heavy construction vehicle use, existing access roads may need to be upgraded to meet construction requirements. As noted above (Table 2-5), potential upgrades to the

4

2164	Comment Response
8	Although more detailed measurements of access roads and facility construction will become available based on the site-specific engineering data in the POD, estimates of ground disturbance that have been developed for purposes of analysis in the DEIS that are reliable according to the project description and the best available data from maps, aerial imagery, and field review.
9	Construction in rugged terrain has been accounted for in the access levels with steeper slopes. Drive and crush construction is generally useful to reduce the amount of erosion potential. (Also please refer to comment no. 7.)

2164

9 Cascabel-Redington Road, i.e. the application of gravel surface and enhanced road base, would enhance the capacity of this county designated "primitive road." Increased traffic volume and speeds are of concern to local valley residents, and would also intensify wildlife mortality and fragmenting aspects as many studies have shown. Without the POD information, these impacts are impossible to quantify and evaluate.

Since the Cascabel-Redington road is "Beyond 700 feet from the Project representative centerline, constructing a new road from structure-to-structure" seems nearly certain, though access roads could be built from various locales. Without the POD information, these impacts are impossible to quantify and evaluate.

"Where new roads are required to meet the access needs of the Project, it is anticipated that a single new road would be constructed to serve both 500 kV facilities (Figure 2-31). In locations of steep or rugged terrain, two separate access roads may be required to accommodate construction of the two parallel transmission lines. New roads may be built as either temporary or permanent access." Since the proposed route through the SPRV is steep and rugged terrain, two separate access roads may be likely, greatly increasing the area of disturbance and fragmenting components. Without the POD information, these impacts are impossible to quantify and evaluate.

Overland drive and crush construction methods are treated as a means of minimizing disturbance. However, in arid zones such methods lead to soil compaction which inhibits re-vegetation, may permanently destroy crusts on desert soils, and lead to erosion and siltation of important watercourses (Andrews, 1990). Furthermore, revegetation recovery rates in these arid regions are notoriously slow and difficult, and can be altogether unsuccessful (CWG, P. 43).

Again, since "The POD will also document specific plans for the construction, rehabilitation, and/or maintenance of the roads, including general locations of access roads and construction methods (i.e., overland drive and crush, cut and clear, etc.), based on site-specific conditions," all of these impacts are impossible to evaluate.

10 **Figure 2-32 Typical Roadway Cut and Fill Conditions:** When the "Cut Slope" and "Fill Slope" are added to road width, the "Disturbance Width," though it is not measured in the figure, appears to be about double the road width, or around 50 feet of disturbance. Since much of the 4C2c route is extremely rugged terrain, and towers are typically placed on high points, the area of disturbance can be anticipated (despite the lack of an accurate POD) to be considerably greater than the figures estimated. If the 24-28 feet of disturbance figure has been used as it appears, this does not permit accurate information for determining impacts.

It is stated that "In certain areas, it could be necessary to block roads after construction to restrict future access for general and undesired use. ...Methods for road closure or management may include installing locking gates or obstructing the path with earthen berms or boulders." In remote areas like the SPRV, these measures are ineffective to OHV travel (See Table 2-11 below). Impacts are thereby being grossly misrepresented.

Access Levels: "Ground disturbance from upgrading or constructing access was estimated (Table 2-7). Existing roads suitable for access and the general condition for each have been mapped. This information was combined with slope and vegetation classifications, to provide

5

2164	Comment Response
10	The access model calculation includes the 24-foot-wide roadway in addition to the larger areas of cut and fill, which increase with the degree of slope. Two separate primary access roads would not be needed, although separate spur roads could be required to reach separate tower sites. The model accounts for a maximum amount of ground disturbance with each typical condition. Various access levels, from 1 through 3, occur along Subroute 4C2c and are measured using the GIS application for each mile of roadway.

2164

10 an estimate of the potential ground disturbance that could result from using existing access roads, upgrading existing roads, or constructing new roads." Without access to this information, it is impossible to review and analyze impacts in the SPRV. Was the figure of 24 feet of disturbance used in high percentage slope areas, versus the 50 feet of actual impact? This would be significant in the new road and high slope percentage area of the SPRV. In the steep and rugged terrain of the SPRV, would two separate access roads be required to accommodate construction of the two parallel transmission lines?

Also, as Table 2-12 indicates, an average figure of ground disturbance is simply multiplied by the 161.2 mile length of the 4C2c route. Table 2-7 shows that roads per mile in new road and high slope areas such as the SPRV can be over twice that of Access Level 1 areas represented by a majority of the 4C2c route, and the area of disturbance over four times as great. The DEIS provides no basis for analyzing miles of road and area of disturbance in this proposed new infrastructure corridor through the highly sensitive and quality habitat of the Middle SPRV.

11 **2.4.12 Mitigation:** Selective mitigation (SE) measures (Table 2-11) are cited throughout the DEIS as effective measures for minimizing potential adverse impacts. However, many of these measures are of limited effectiveness, particularly in largely unfragmented and intact areas such as the Middle SPRV represents. At numerous points the recommendation is to avoid such areas and follow existing infrastructure corridors. This recommendation is repeatedly ignored with regard to the SPRV route and SE measures are cited as minimizing impacts, as though the damage is undone. A linear installation of the size and scope of the SunZia project would create fragmenting terrestrial, aerial and aquatic impacts across a 40 mile stretch where no impacts of this scale and scope presently exist between the Rincon-Catalinas and the San Pedro River, an area of several hundred square miles. Once fragmentation of this order occurs there is no going back to previous levels of connectivity, no matter the minimizing efforts. "You break it, you own it" is as applicable to natural communities as it is for human societies.

> *Ideally roads and other linear corridors should not be constructed through areas which are important to the survival of species, or remaining wilderness areas. National Parks and conservation areas should also be protected from these structures, which are best sited on land already disturbed.*
>
> *Siting of such projects is significant, and all possible alternatives should be investigated if wildlife values and viable habitats are to be sustained for future generations. Once wildlife suffers the most serious effect of fragmentation it is far more costly to maintain unviable areas, and to breed species back from near-extinction, than it is to leave viable areas of habitat undisturbed while we have the choice.* (Andrews, CWG P. 51).

12 **SE measure 6** is the most egregiously ineffective mitigation method. Gating or otherwise blocking from public access to sensitive areas as a means to reduce the potential for indirect effects associated with increased traffic is demonstrably ineffective in this area. TNC and Pima County have extensive experience with OHV trespass, especially with proximity to these burgeoning population centers. Policing of roads and gates is virtually impossible in this remote area. Replacing locks and rebuilding gates is routine.

6

2164	Comment Response
11	Comment noted
12	Mitigation Measure SE 6 would be effective to mitigate potential unauthorized access in selected locations where fences and gates can be controlled. The use of this mitigation measure would be specified in the POD where it would be supported by land owners or land management agencies' representatives.

2164

13 Route 4C2c crosses 6.1 miles of perennial streams and 35.1 miles of intermittent streams (P. 3-67). Off-road vehicles presently trespass and follow washes up and down drainages. With 40 linear miles of cross-drainage roads this practice is bound to increase. Though some ranch roads exist in the area, they are not of the proposed SunZia scale, and typically follow ridge lines rather that crossing multiple drainages, especially over such distances.

OHV destruction of vegetation, compaction of soils and resultant erosive activity can be severe. Some remote and isolated threatened and endangered species of plants may be threatened by off-road vehicle use. The consequence of increased sediment load into streams from disturbed soils is also an extremely important issue. Providing greater opportunity for the illegal collecting of reptiles, including Desert Tortoise, Gila Monster and other species of concern permitted by such access is also a considerable issue (CWG, Pp. 48-51, 94-99).

14 In such open country as the west SPRV route traverses there is simply no effective method of fencing and gating sufficient to deter OHV trespass. This is really an immitigable impact, and the DEIS should expound on rather than gloss these effects.

15 **SE Measure 15** is also of limited effectiveness. It is stated that "To minimize bird collisions, bird diverters would be installed and maintained on groundwires, transmission lines, and/or guywires in areas of heavy bird use (i.e., Rio Grande and other riparian corridors)." It is notable that the SPRV is not referenced, even though avian migration is estimated to be much greater than the Rio Grande or any other area in the Western U.S.

Further, throughout the DEIS consideration of the avian migration corridor appears to be limited to the main-stem river riparian area, apparently reflecting the Rio Grande's "relatively narrow strips of preferred habitat along the river" (App B2-68). The situation is considerably different in the SPRV, where both Skagen's study and the CWG compilation of bird lists from various locales and elevations indicate a valley-wide distribution of migration, including many canyon oases and even xeroriparian washes (CWG, Pp. 64-67).

Thus bird diverters would need to be installed not only crossing the river corridor, but along the full 40 mile traverse of two track transmission lines. Even reducing collisions between 50 and 90 percent among this critical and declining population of Neotropical migrants is concerning, but as noted there are still the issues of the effects of inclement weather and nocturnal flight of birds on collision potential. Though birds typically migrate at elevations above those of transmission lines, their nocturnal flight patterns correspond to crepuscular roosting and departure patterns, and lit diverters offer very mixed results.

As EPG's own study indicates, "The best mitigation from the bird collision perspective is line routing that avoids avian hot spots, travel corridors and migration routes to the extent practicable. Placement of lines at adequate distances from avian resources has been shown to be effective in mitigating potential avian collisions (Brown et al. 1984, 1987 *in* APLIC 1994) (App B2-67). Since the entire SPRV at all elevations is an avian hot spot, travel corridor and migration route, placing transmission lines out of the SPRV altogether is the best mitigation of impacts.

16 **2.5.3 Route Group 4:** It is stated that "Subroutes 4A and 4B cross a roadless area north of the Galiuro Mountains and south of Aravaipa Creek, potentially allowing new vehicle access to recreationists." What is the definition of "roadless?" Since there are dirt roads in the area (see

7

2164	Comment Response
13	Comment noted
14	See response to comment no. 12.
15	Mitigation measures to minimize the risk of bird collisions will be employed in the San Pedro River Valley, at the river crossing and potentially at other locations if found to be warranted. However, in contrast to the Rio Grande, the San Pedro River does not support large numbers of birds at the highest risk of collision (cranes, waterfowl, etc.). Large wading birds are present, but would primarily be associated with the riparian corridor. The valley-wide bird movements discussed in the comment are largely passerines and other smaller birds, not typically at risk of collision. North of the river crossing location, bird movement through the valley is largely parallel to the proposed route which would also assist in minimizing collision risk.
16	Comment noted

2164

16 Sky Island Alliance Aravaipa Ecosystem Management Plan Recommendations), the definition is presumably "unimproved" dirt roads, a definition that would be applicable to most of the Middle SPRV, and decidedly to the area between the Rincon-Catalina Mountains and the San Pedro River traversed by 4C2c. Thereby it should be a acknowledged that the portion of subroute 4C2c that traverses the SPRV crosses a roadless area west of the San Pedro River, potentially allowing new vehicle access to recreationists.

17 It is also stated that "The amount of estimated ground disturbance for seven of the eight subroutes is relatively similar and would vary from 5.7 to 6.0 acres per mile." Again, this figure is an average across many miles and an inaccurate gauge of local biological impacts, which are not subject to averaging. If these figures are available, and the average figures are considered worthy for public review and an ROD, why are the localized figures not included in the DEIS for review, even if not final?

2.5.4 Selection of the BLM Preferred Alternative: Though the route selection categories make sense, there is no ranking system as to importance. Are they presented in order of significance, or are they all of equal merit? There are difficulties with the selection of 4C2c either way.

18
- **Maximize use of existing utility corridors and infrastructure:** The Table 2-12 Alternative Route Comparison indicates that 4C3 (the Tucson route) follows 84% of existing utility or pipeline corridor. 4C2c parallels only 57% of existing utility or pipeline corridor, and it is noted that it only parallels 45% of existing transmission lines. Assuming that this is the first and most important category of selection, the selection of 4C2c is faulty.

  Further, though 72 miles of 4C2c parallels existing transmission lines, it is the "40.3 miles of new access" (cf. Table 2-15), primarily subroutes C201, C441, and C450 (cf. Figure 2-6) through the SPRV that are at issue. Since this portion creates an entirely new corridor and the SPRV is a highly sensitive resource, this section should be broken out as a separate route, as should the portions of 4A and 4B that traverse the Galiuro wilderness area. By virtue of including this highly sensitive resource in the midst of low impact areas, all figures re impacts are deceptively skewed. Though impacts can be *numerically averaged* across a 161 mile route, *biological impacts cannot be averaged*. The priority of maximizing existing utility corridors and infrastructure, in concert with the second most important issue – minimizing impacts to sensitive resources – should remove both the SPRV and Aravaipa routes from consideration.

  It is stated that, "4A and 4B would require construction through areas where there is less existing access or other development. The construction of new transmission lines through relatively undeveloped areas could also cause cumulative impacts, such as the potential for habitat fragmentation and ground disturbance resulting from future access." Those are accurate descriptions and applicable considerations, but they also apply to the SPRV portions of 4C2c. The Middle SPRV is also a largely unfragmented and intact area, even if considering the valley bottom with its couple hundred residents and only dirt roads. In particular however, the area between the Rincon-Catalinas and the San Pedro River which 4C2c traverses is an area of several hundred square miles with hardly a residence and nothing but ranch roads – not dissimilar in most respects to 4A and 4B which also contains OHV roads. A linear installation of the size and scope of the

8

2164	Comment Response
17	Localized impacts to biological resources resulting from potential ground disturbance in the SPRV are indicated for each one-tenth mile segment on the biological resource maps: Figures 6-1W, 6-2W, and 6-3W (DEIS Map Volume). The figures for estimated ground disturbance are included in the impact level tables in the DEIS, Appendix H - Impact Levels; the ground disturbance estimates and impact levels for biological resources are listed in Table H-6 and Table H-7 (pp. H-31 through H-38). (Also see response to comment no.7.)
18	The BLM weighed the impacts associated with each alternative route and identified one route that avoids or minimizes impacts by locating the preferred alignment along existing disturbance and avoiding critical resources to the greatest extent. It also follows an existing natural gas pipeline for 50% of the length. Although the portion of the route which parallels the San Pedro River is all on State land, it does not cross nor come near lands with special designations. The preferred was chosen not only for having the least impact to resources, but also having the least impact to resources that could be directly mitigated, such as preventing or controlling soil erosion, wildlife habitat and species mitigation. The SunZia transmission lines would follow the existing 345 kV transmission line corridor, which has the benefit of using the same primary access roads, particularly at the San Pedro River crossing where there is existing access and minimal suitable Southwestern Willow Flycatcher habitat.

2164

18 SunZia project would create fragmenting terrestrial, aerial and aquatic impacts across a 40 mile stretch where no such impacts presently exist.

Furthermore, while 4C2c *parallels* Tucson Electric Power Company's 345-kV lines across Allen Flat, it is located 1,800-2,000 feet south of TEP's corridor and does not actually *utilize* it, necessitating construction of an entirely new road to build and maintain the project. Since this portion of about 15 miles is actually not following existing infrastructure or taking advantage of the colocation of existing lines, the actual total percentage of 4C2c following existing infrastructure corridors is below 50%, and where it actually follows existing transmission lines is only about 34%. This should be another factor in the route's removal from consideration.

19 • **Minimize impacts to sensitive resources:** As the second most important category of consideration, 4C2c is decidedly flawed as a choice. As noted, "Subroute 4C3 would have relatively fewer biological impacts because it would pass through a large area of previous disturbance (Tucson and I-10 northwest of Tucson) (P. 2-101)." Thus, under the DEIS' first two most important categories, the 4C3 route is far and away the frontrunner.

Further, as the discussion regarding the Environmental Sensitivity Summary above indicates, the sensitivity of the SPRV is inadequately evaluated per NEPA categories of consideration. The SPRV's wild river, its function as a major avian and wildlife corridor, its largely unfragmented and intact landscape, its significant biological diversity and ecological services, and the major conservation investments and initiatives therein – all factoring as of "high" sensitivity – should remove it from consideration. Those factors are also largely applicable to the 4A and 4B routes.

20 • **Minimize impacts at river crossings:** It is noted that "The southernmost crossing of the San Pedro (Subroute 4C2b, 4C2c, or 4C3) would result in the least impact to riparian habitat." This may be accurate for the Tucson 4C3 route, but it is decidedly in error for 4C2c. The DEIS continually disregards the valley-wide character of both the SPRV avian migratory corridor and the riparian/aquatic resources that the proposed 40 miles of installation would traverse. This was routinely explicated throughout CWG's earlier DEIS contributions here appended, and apparently ignored in contradiction to NEPA guidelines.

Throughout the DEIS consideration of the avian migration corridor and watershed resources appears to be limited to the main-stem river riparian area, apparently reflecting the Rio Grande's "relatively narrow strips of preferred habitat along the river" (App B2-68). The situation is considerably different in the SPRV, where both Skagen's study and the CWG compilation of bird lists from various locales and elevations indicate a valley-wide distribution of migration, including many canyon oases and even xeroriparian washes (CWG, Pp. 64-67).

With regard to the watershed, Table 4-14 indicates that 4C2c crosses 6 miles of perennial rivers and 40 miles of intermittent streams. "Subroute 4C2c has 36 percent of the route sensitive to water resources, which, along with 4C2, is the highest sensitivity. This is a result of crossing more mileage of perennial streams and 42 miles of the sole

9

2164	Comment Response
19	It is acknowledged that the San Pedro River is considered to be highly sensitive. However, construction of transmission lines crossing the river can be achieved with minimal disturbance to the river channel and associated riparian vegetation by placing towers where conductors would span over the river and much of the riparian vegetation. Selective Mitigation Measure 8 would be implemented at the river crossing.
20	Engineering designs and mitigation measures (i.e. use of existing roads) are in place to minimize the impact to the SPRV as much as possible. 4C2C like all other alternative routes were analyzed cumulative for the impact to water resources as a whole that includes streams, rivers, water bodies, groundwater, and aquifers. In addition, other resources are also weighed in the selection of a preferred route. 4C3 actually crosses 15 miles of perennial streams and 49 miles of intermittent streams which is more that 4C2 or 4C2c. Plus, 4C3 crosses twice as many miles of the sole source aquifer and is within close proximity to a greater number of groundwater wells than 4C2 and 4C2c.

2164

20 source aquifer, and having the second longest route (Section 4.5)." "Removal of unique riparian habitat, increased sedimentation, and reduced water quality are among the primary adverse environmental effects on surface water resources that could be associated with the proposed Project (P. 4-52). The Resource Comparison Summary in Table 2-15 indicates that in fact the erosive soils in San Pedro River Valley (C450) are an earth and water resource concern. Table 3-18 indicates that 4C2c crosses 75 miles of Moderate Water Erosion Potential.

Impacts to the San Pedro riparian habitat do not stop at river crossings or at 4 miles from the project center line. Due to erosion and other fragmenting impacts, every crossing of perennial and intermittent streams (many of which also provide connective riparian habitat) along the 40 mile traverse of the SPRV has impacts on the river's water quality and riparian habitat. Given the hemispheric importance of the San Pedro River, consideration of these issues is requisite for route selection and required by NEPA as well as basic ecological understanding. *"Freshwater ecoregions differ from their terrestrial counterparts in two important and related ways. First, because of the connectedness of freshwater habitats, spatial and functional linkages across large distances are strong, with upstream activities manifested in downstream effects. Second, conservation of a given freshwater site must nearly always occur at the watershed scale (Abell, CWG, pp. 27-9)."*

Again, 4C2c fails to meet the criteria for selection, and it is questionable why 4C2c was selected with this level of potential impact to water resources. It is worthy of note that once again the 4C3 "Tucson" route is the leader in meeting the DEIS standards for selection.

21 • **Minimize impacts to residential and commercial uses:** This is a valid consideration, but its placement as fourth on the list of considerations for selection is appropriate. It would seem invalid, or at least a calculated urban bias, if this one category were to supersede the impacts to high sensitivity environmental resources. What is the calculus whereby visual and financial impacts to urban and commercial users (who would gain the benefits of the transmission corridor) outweigh the impacts to the environment and the economies of rural residents? This is especially germane when the presumed rationale of the SunZia project is the environmental advantage of reduced carbon emissions. Furthermore, since the BLM is the arbiter and its mission is "To sustain the health, diversity, and production of lands for the use and enjoyment of present and future generations," rather than to sustain the viewshed of urbanites and the financial gain of commercial users, it would seem that the priority would be obvious.

22 • **Minimize impacts to military operations within the restricted airspace north of the WSMR.** Apparently 4C2c is not the leader in this category either.

23 Since the 4C2c route trails in four of the five categories for selection, it is difficult to ascertain the rationale for its selection – unless the bias in favor of urban and commercial users outweighs all other considerations, a bias which would not satisfy NEPA requirements or common sense. If a route were to be selected from the alternatives and by virtue of these

10

2164	Comment Response
21	The decision maker must consider impacts to the human environment, which includes impacts to residential and commercial land uses, socioeconomics, and other resource values. The relative importance of all resource values is weighed in the decision based on the lead agency's criteria within reasonable limitations, but cannot be measured using a mathematical formula.
22	None of the subroutes in Group 4, including 4C2c, would impact the restricted airspace north of the WSMR.
23	Please see response to Comment no. 21.

2164

23 categories, the 4C3 Tucson route is really the only one that passes on the bases of any fair evaluation.

24 **Table 2-12 Alternative Route comparison:** It is stated earlier and presumably as a basis for this table that, "Temporary roads serve the needs for Project access during the construction phase, but are not anticipated to be necessary for operations or decommissioning purposes. Upon completion of construction activities, temporary access roads would be reclaimed according to the procedures specified in the Final POD (2.4.10.1)." Since in arid zones soil compaction (as a byproduct of heavy equipment used in construction) inhibits re-vegetation, may permanently destroy crusts on desert soils, and leads to erosion and siltation of important watercourses (Andrews, 1990), and since revegetation recovery rates in these arid regions are notoriously slow and difficult and can be altogether unsuccessful, the distinction between temporary and permanent disturbance is suspect (CWG, P. 43). At the least the table should show total acres of disturbance.

Again, figures here are suspect because they are averages over long distances and show no local impacts, even though those subroute section figures are apparently available to construct such averages. It also appears doubtful that the full 50 feet of disturbance is accounted for in these figures for high slope areas, as noted above in comments re Figure 2-32. Finally, areas of disturbance may well be grossly underestimated as is typical for contractors, just as actual costs routinely come in at several times estimates. BMPs may have led to substantial improvements, but a standard figure has been that, "...for each kilometre of transmission line 25-40 ha of land is compacted (Andrews, CWG P. 43)." It should also be considered that there is no consideration for OHV disturbances which can be considerable and, as noted above, are virtually impossible to regulate in remote areas like the SPRV.

25 **3.1 INTRODUCTION:** It is stated that "...resource data have also been collected outside of the study corridors to indicate regional context. The width of the study corridors along the alternative routes differs for each of the resource disciplines, depending on the area that potentially could be affected (Table 3-1). For display purposes, a 6-or 8-mile-wide corridor (3 or 4 miles on each side of the centerline) is shown on the resource maps (see Map Volume)." A 6 or 8 mile wide corridor indicates a mere token nod to NEPA requirements for assessing impacts in a regional context (See comments for Table 2-1 Environmental Sensitivity Summary above). Not only does it not satisfy the basic requirements of NEPA, it does not satisfy the most basic tenets of ecology. Impacts of an infrastructure installation of this size and scope must be considered on at least a watershed scale.

26 **3.3.5.1 Erosion Susceptibility:** It is acknowledged that, "Areas of soils that are highly susceptible to water erosion are mostly restricted to the river valleys of the Rio Grande, San Pedro River, and Santa Cruz River." Table 3-18 indicates that 4C2c crosses 75 miles of Moderate Water Erosion Potential. Since most of the SPRV route occurs in high percentage slope areas, the erosive susceptibility of soils should be sufficient evidence by itself that impacts cannot be limited to 3 or 4 miles from a center line. See CWG, Pp. 45-48 for a discussion of these concerns.

27 **3.5.4.2 Arizona State-listed Impaired Waters and Unique or Outstanding Waters:** A water quality assessment found that "Tributary washes appear to be sources of high quality

11

2164	Comment Response
24	Comment noted. Potential OHV disturbances may occur where there are no existing roads, and may also be controlled in OHV recreation areas to the extent that new access roads are provided and maintained. Also please see response to Comment no. 18.
25	Potential impacts within the greater region beyond the study corridors have been identified and analyzed as indirect and cumulative impacts (Section 4.17 of the DEIS). The study area has been defined for each affected resource, according the potentially affected area for each resource.
26	The application of standard mitigation measures along the length of Subroute 4C2c in the San Pedro River Valley and selective mitigation measures where sensitive soils have been mapped along this alternative would mitigate impacts to soils that are susceptible to water erosion thereby limiting surface destabilization and sedimentation into the watershed. Standard mitigation measures (Table 2-10) include a number of for proper road construction methods to ensure stable surfaces both for the sake of reducing Project-related impacts to the environment and continued maintenance access to the Project area. Standard mitigation measure #4 requires siting access roads along the natural landform contour wherever possible thereby reducing both ground disturbance and vegetation removal reducing the potential for erosion of surface soils. Standard mitigation measure #5 requires that vegetation be left in place where possible which would reduce ground disturbance and maintain subsurface root structure reducing the potential for erosion beyond natural levels to occur. Standard mitigation measure #8 requires surface restoration of various Project-related work areas including restoration to original landform contours, reseeding, and installation of cross drains to control water flow within the Project area which would restore disturbed site stability and reduce the potential for erosion beyond natural levels. Standard mitigation measure #19 requires that tower sites be located at least 200 feet from any stream where practicable which would limit the potential for sedimentation. The application of selective mitigation measures (Table 2-11) where soils susceptible to water erosion have been mapped within the San Pedro River Valley would further reduce the potential for erosion beyond naturally occurring levels. These selective measures include not widening or otherwise upgrading existing access roads in areas with erosion susceptible soils, utilizing existing crossings of perennial streams, placing crossings of canyons at the maximum practicable distance, utilizing overland access (i.e., drive-and-crush or cut-and-clear) to the greatest extent possible. All of these measures would further reduce Project impacts to soils susceptible to water erosion. Furthermore, the Project Plan of Development would include erosion-control and site reclamation procedures in the Erosion Dust Control, and Air Quality Plan; Stormwater Pollution Prevention Plan Methodology; and Right-of-Way Preparation, Reclamation, and Monitoring Framework Plan.
27	The portion of Aravaipa Creek listed by ADEQ as being "outstanding" is greater than 4 miles from the centerline for the closest Link C170. Buehman Canyon is within the study area, but the portion designated as "outstanding" water by ADEQ is 0.5 miles from centerline of Link C441. It is not anticipated there will be any discharge to these outstanding waters. Engineering designs and selective mitigation measures are in place to prevent additional run off and sedimentation.

2164

27 groundwater to the San Pedro River." Buehman Canyon, which 4C2c crosses, was investigated and designated a "Unique Water" [or OAW] of the State by the Arizona Department of Environmental Quality in 1996, which provides for a high standard of protection of quality. As noted, a permit is needed to discharge to an upstream tributary of an OAW and is only permitted if existing water quality is maintained.

"The [OAW] *determination and finding is based upon the decision criteria for designation including recreational or ecological significance" or is found to be essential for the continued existence of threatened and endangered species as well as possibly providing critical habitat (Arizona Administrative Code [AAC] R18-11-112).*

Unique waters are granted supplemental water quality protection through an anti-degradation requirement (AAC R18-11-107 [D]). Any new or additional discharge to a 'unique water', including its tributaries, is prohibited if that discharge would degrade existing water quality. Site-specific water quality standards can also be applied to unique waters for an added level of protection (AAC R18-11-112) [CWG, p. 75]."

The only OAS found in Arizona by the DEIS is Cienega Creek which is crossed by the Tucson route. In addition to Buehman Canyon, Aravaipa Creek is also one of "Arizona's Designated Unique Waters [or OAS]" and within the purview of the DEIS. Aravaipa Creek, Hot Springs Canyon, Redfield Canyon and the San Pedro River are also all "Arizona Waters Potential Candidates for Wild and Scenic River Designations." Of special significance is that these tributary canyons are predominantly absent exotic species since non-native aquatic vertebrate species are the predominant stressor (CWG, Pp. 75-6). The introduction of exotics into these high quality waters is another concern of opening up new access routes to trespass. These concerns appear beyond the scope of DEIS investigation, but inappropriately so.

28 **3.6.5.2 Birds:** The avian migratory flyway of the Rio Grande is noted, but peculiarly the same aspect of the San Pedro is ignored. The preeminence of the SPRV Neotropical migratory route in the Western U.S. is well established (See CWG, Pp. 6-8, 62-4). A comparison of ecosystem services, which is a measure of both ecological and economic benefits to humans, shows that the SPRV is considerably higher in the avian metric than the Rio Grande (Biodiversity Metrics EPA/600/F-11/006, May 2011 www.epa.gov).

29 **3.6.6.5 USFWS Species of Concern / 3.6.6.6 AZGFD Wildlife Species of Concern / 3.6.6.9 Species of Greatest Conservation Need / 3.6.6.10 Pima County (Arizona) Priority Vulnerable Species:** The Lowland Leopard Frog (*Rana Yavapaiensis*) is a BLM sensitive species in Arizona, a Forest Service sensitive species, a USFWS species of concern, an AZGFD WSC, an SGCN in Arizona, and a Pima County PVS (Appendix B1, p. 210). It is noted there that the Lowland Leopard Frog is "known to occur in the Project vicinity… but most of these localities are outside of the Project area of influence (B1-210-11)." In fact, the Lowland Leopard Frog occurs in Buehman, Bullock, Espiritu and Youtcy Canyons, each of which is crossed by the 4C2c route (CWG, p. 78).

Appendix B-1 also notes that threats to the survival of the Lowland Leopard Frog "include human alteration of its aquatic habitats such as through water diversion, groundwater pumping, and development of reservoirs." It does not mention, as does Pima County's Sonoran

12

2164	Comment Response
28	The importance of the San Pedro River Valley to migratory birds is acknowledged in multiple locations throughout Section 3.6.
29	Species distribution noted, and is addressed further in Appendix B1. The referenced citation does not indicate that extirpation of those species would be likely as a result of access roads. The primary discussion is related to expanded mining in the San Pedro River Valley and its effects on water quality, with access roads as a potential secondary issue. All streams supporting aquatic species would be spanned without new access road crossings.

2164

29 Desert Conservation Plan for the A-7 Ranch (crossed by the 4C2c route), that increased vehicular use by recreational users in this area would increase sedimentation from disturbed soils in roads and that extirpation of aquatic dependent species such as Longfin Dace and Lowland Leopard Frog would be likely (CWG, p. 82).

This is cited as just one example (time does not permit for greater examination) of either a too narrow study area, or an insufficient resource review, or both. It also indicates an insufficient attention to the impacts of erosion in this sensitive watershed, both by project roads that BMPs and mitigation measures cannot adequately address, nor by trespass vehicles that will be permitted by this new access.

30 **3.6.7 Biological Resource Conservation Areas:** This list is inadequate to reflect the extent of biological resource conservation areas and partners in the SPRV. A separate listing should be created for proposed new routes through the highly sensitive SPRV that reflects the many partners and $42.5 million in conservation investment as recently tallied by TNC. See CWG, pages 14-17 for a better but still incomplete listing.

31 **3.6.8.1 Wildlife Linkages:** The DEIS details the importance of wildlife linkages, noting that "Habitat fragmentation and loss are currently recognized as the principal threats to biodiversity." Puzzlingly, for an area of such renowned biodiversity as the SPRV, and of such largely unfragmented and intact extent, it finds not a single wildlife linkage. However, there are abundant examples of existing and proposed linkage projects in the valley:

- **AGFD Arizona's Wildlife Linkages:** From the same Wildlife Linkages Assessment referenced, number 82 was identified between the "Habitat Blocks" of the Rincon-Catalina Mountain and Winchester-Galiuro Mountain complexes from Soza Wash to San Manuel. Its purpose was "to document the connectivity value of these lands before adverse activities are proposed."
- **AOLT Imperiled Movement Corridors:** Mapped by The Arizona Open Land Trust with TNC, it identified Hot Springs/Paige Canyons and Redfield/Buehman Canyons as main SPRV cross-valley corridors.
- **Sonoran Desert Conservation Plan:** One of the conservation strategies articulated in Pima County's purchase of the A-7 was to "Maintain relatively unfragmented landscape connections between the Rincon, Santa Catalina, Galiuro and Winchester mountain ranges and through the San Pedro River valley…."
- **Hot Springs Canyon Neighborhood Wildlife Corridor Conservation Easement Project:** Local landowners donated $2.4M worth of fee simple and conservation easement lands to TNC in order to connect protected upstream core habitats in the Galiuro/Winchester Mountains with those on the San Pedro River and in the Rincon/Catalina complex.
- **Pinal County Open Space and Trails Master Plan:** Pinal County has recognized the unfragmented nature of the Lower SPRV by adopting a plan that identifies much of the area as open space.
- **USFS Forest Legacy Program:** The SPRV was selected as the number-one Forest Legacy Program project in the nation, receiving commendations from Governor Brewer and the

13

2164	Comment Response
30	Additional conservation areas will be addressed, pending additional inventory and information from USFWS and others.
31	As described in Section 3.6.8.1, the DEIS discusses priority linkages that were modeled in detail by the Arizona Wildlife Linkages Working Group.

31 district's Congresswoman Gabrielle Giffords. Habitat fragmentation was a key management issue in their Forest Plan revision, noting that the lower SPRV is a critical link between Coronado National Forest lands in the Catalina Mountains to the west and Galiuro Mountains to the east.

- **USFWS Lower San Pedro Collaborative Conservation Initiative:** While still in the planning stages, the initiative notes that the San Pedro River basin is considered to be a "keystone" transition zone that sustains biodiversity in other eco-regions, and states that "Large infrastructure proposals could degrade habitat quality, increase erosion potential, and bring more water demands to compete with current users."
- **Arizona State Trust Lands Rincon-Galiuro Corridor:** Approximately 36,000 of state trust land is proposed for conservation status under the state trust land reform initiative for what it calls a "migratory superhighway" that runs across the SPRV between the Rincon and Galiuro mountain ranges.

All of these projects and initiatives, and more, are invested in the Lower SPRV because of its largely unfragmented and intact nature that supports outstanding biodiversity and connectivity between habitat blocks and other eco-regions. Despite the fact that all of these projects and their fragmentation concerns are traversed by the 4C2c and other SPRV routes, the DEIS does not address the issue in any meaningful way. Rather it keeps its focus on a narrow study area of a few miles width, contradicting NEPA directives and standard biological tenets, which should be the point of an objective DEIS evaluation of impacts.

Contrarily, the CWG DEIS contributions for the proposed SunZia routes in the SPRV, delivered in July, 2010, focused on this as the central issue in: Chapter III, B2 "Unfragmented and Intact Landscape" (Pp. 9-12); Chapter III, D "Connectivity" (Pp. 29-37); and Chapter IV, B "Landscape Fragmentation (Pp. 38-51). Apparently these discussions were ignored or dismissed, but the documentation is extensive and is required for consideration. Instead of the existing "migratory superhighway," the SunZia project would create a new "superhighway" of access through land which is presently largely unfragmented and intact. If duly considered, the SunZia impacts to fragmentation in the SPRV would implicate a "No Action" response.

32 **3.6.8.4 Important Bird Areas** Lower San Pedro River: It is stated that "The entire San Pedro River corridor in Arizona is an important movement corridor for avian and other wildlife species." That should be corrected to "the entire San Pedro River *Valley* corridor." Both Skagen's study and the CWG compilation of bird lists from various locales and elevations indicate a valley-wide distribution of migration, including many canyon oases and even xeroriparian washes (CWG, Pp. 64-67).

33 **3.10.5.1 General Land Use Subroute Summary:** Throughout this section the terms "vacant" and "vacant/undeveloped land" implies a negative bias, not far removed from earlier designations as "wastelands." Such characterization represents a strong urban bias inappropriate for assessing impacts to such biological diverse areas that provide such economically valuable ecosystem services.

34 **3.11.11.9 National Wildlife Refuge Subroute Summaries:** It is true that "There are no NWRs located in or near the subroutes in Route Group 4," but there is a failure to mention throughout

2164	Comment Response
32	Comment noted
33	Land uses were categorized for the study corridor inventory according to the categories defined in Section 3.1.10.2, Methods. The definition of this category is as follows: "*Grazing/Multi-Use/Vacant* – all land uses that did not fit under a specific category, or were not specifically designated for a specific use by the responsible jurisdiction or land management agency." (DEIS, p. 3-216) This category includes privately owned lands, as well as state or federal (public) lands leased for grazing; the underlying description is "vacant" because they do not contain any other specified land use and are generally undeveloped, although they do contain utilities and range improvements such as tanks and fences.
34	The proposed Lower San Pedro NWR corridor contains the critical habitat and associated riparian resources that have been recognized for their high sensitivity in the proposal to establish a NWR. Although the NWR has not been formally established, the same resources attributed to the value of the proposed refuge have been recognized and addressed in the DEIS and FEIS analysis (Section 3.6.7.9, 4.6.4.6).

34 the DEIS that the USFWS Lower San Pedro NWR proposal has been approved by the Service Director and Secretary of Interior and could be a reality in the not distant future. Since this proposal indicates a "high sensitivity" area, route avoidance is the typical and recommended procedure.

35 **3.13.2.2 Arizona: "**According to the 2009 U.S. Census, population densities within the study area were highest in Pima County, with nearly 108 persons per square mile." The area traversed by the 4C2c SPRV route has about 200 residents within a relatively unfragmented landscape of hundreds of square miles. Relatively unfragmented and watered valley bottoms, unlike largely uninhabitable mountainous areas, are exceedingly rare in the desert southwest. Though fragmenting components such as a trans-valley dirt road and an 115Kv transmission line exist in the Middle SPRV, a resident population of 200 people in an area of several hundred square miles from Tucson's eastern Rincon-Catalina flanks to the Galiuro-Winchesters and from the Narrows to San Manuel is remarkable. From the standpoint of fragmenting impacts, this should be noted as a positive attribute, and one that would be negatively impacted by opening new routes of access.

36 **3.13.9.3 Summary of Inventory Results:** This section focuses on population centers while ignoring the vast landscapes crossed by 4C2c which provide economic livelihood for ranchers and ecosystem services of significant economic value in the southwest and western hemisphere (see Biodiversity Metrics EPA/600/F-11/006 May 2011 www.epa.gov) .

37 **4.1.1.1 Assessment of Initial Impacts:** The potential vulnerability of each resource as affected by the Project evaluated against the Resource significance, sensitivity, quality and quantity are the appropriate considerations. It is however inappropriate to NEPA's requirements and basic biological tenets to arbitrarily limit those considerations solely to discrete categories and a few miles from a center line.

The "Resource" is also the Middle SPRV: It has enormous significance by virtue of $42.5M of legally protected conservation properties (with more proposed), and special status by virtue of its wild river, local and hemispheric connectivity, and as a hotspot of biodiversity. It is of high biological sensitivity as are all desert soils, flora and fauna, as well as being demographically vulnerable due to its location proximate to the Sun Corridor; Its quality is extraordinarily rare, the last of its kind, and of substantive economic value as a working landscape and providing extraordinary ecosystem services; and since such unfragmented intact landscapes and migratory corridors are so rare in the desert southwest, and the SunZia proposal traverses 40 miles in the very heart of that resource while opening up a major infrastructure and trespass corridor, the potential impacts are critical to its ongoing vitality and sustainability.

38 **4.3.2.3 Soil Resources:** The Indirect impacts of access roads – opening currently inaccessible areas resulting in accelerated rates of erosion; the degradation of the land surface and loss of soils resulting from accelerated soil erosion; and the loss of soil productivity and negative impacts on water quality – are enormous and unacceptable to a resource of such significance, sensitivity, high quality and value as the SPRV. Again, per Table 4-9, the impacts to the SPRV itself are hidden in figures averaged over 161 miles and without the specifics of the POD, which also applies to the SE mitigations.

2164	Comment Response
35	Comment noted
36	The economic impacts on ranching activities have been addressed in Section 4.13.4.5 of the DEIS. Although approximately 20 percent of the right-of-way would be disturbed, the remainder can be used for grazing. Impacts would be minimized during construction with mitigation measures to allow ranching operations to continue.
37	Comment noted. Also, cumulative impacts to resources in the San Pedro River Valley are discussed in Section 4.17 of the DEIS.
38	Comment noted. See response to Comment 26.

2164

38 Further, whatever the advantages of mitigations, there remain immitigable erosive impacts to the SPRV watershed of such high significance, sensitivity, quality and value. What reparations for these immitigable impacts will be made to the public in compensation for losses to these ecosystem services?

39 **4.5 WATER RESOURCES:** "Removal of unique riparian habitat, increased sedimentation, and reduced water quality" are unacceptable impacts to a resource of such significance, sensitivity, high quality and value as the SPRV.

4.5.3.4 Route Group 4: 4C2c crosses 6 miles of perennial rivers, 40 miles intermittent streams, and has 36 percent of the route sensitive to water resources, which is the highest sensitivity. Without a breakdown of locales per a POD, how do we know that this is a result of "more mileage" of the route rather than that these impacts are focused in the SPRV?

"The construction of access roads, staging areas, work areas, and stream crossings could affect perennial and intermittent streams, water bodies, wetlands, wells, and springs," but there is little mention of mitigation measures. Whatever the advantage of mitigations there may be, again there remain immitigable impacts to the SPRV watershed of such high significance, sensitivity, quality and value. What reparations for these immitigable impacts will be made to the public in compensation for losses to these ecosystem services?

40 **4.6 BIOLOGICAL RESOURCES:** This is an interesting section, and ordinarily it would be of priority interest. It reviews an abundance of potential negative impacts across the spectrum of biological classifications in a generally sound manner, and makes points throughout that most with concern for the SPRV would assent to. Despite that, very few of these considerations make it into data charts and evaluations. That appears to be because of the presuppositions established in Chapter 2, which was extensively discussed above. When the parameters and categories are set so narrowly, rather than addressing both discrete *and* general attributes, discussions such as these can sound good, but their concerns do not get reflected in the data and evaluations. With the limited time appropriated to review the material, there are only a few limited remarks worthy of attention.

4.6.2.2 Wildlife: Illustrating the above point, this section begins with a good generalist discussion of potential fragmenting impacts of the proposed infrastructure corridor. **4.6.3.1 Significant Impacts** also lists "Fragmentation resulting from the addition of new infrastructure to large, currently intact blocks of habitat" as a significant impact. Following is a long list of biological classifications and special status species that are addressed, which is appropriate in itself. But, after returning to the fragmentation issue [**4.6.4.7 Agency-Identified and Other Biological Resource Areas** Wildlife Linkages] and another good discussion of habitat fragmentation, this overarching issue is addressed by the implementation of discrete mitigation measures SE 1, 2, 3, 4, 5, 6, 8, and 14 which "would minimize these effects." And those "are applicable to each of the wildlife linkages discussed below."

Whatever the minimizing effects, major fragmentation still occurs, and as a resource of the SPRV's significance, sensitivity, quality and value, this should recommend avoidance and be reflected in data. Statements such as "Overall, however, impacts of linear features on wildlife are mostly negative and may be difficult to mitigate," and "fragmentation is currently

16

2164	Comment Response
39	In performing the analyses and assessments for the DEIS all water resources (streams, rivers, water bodies, groundwater, aquifers, etc.). The SPRV is one of the water resources analyzed. In addition, water resources are just one of a number of other resources that are assessed for each route and their links (i.e. biological resources, paleontological resources, cultural resources, visual resources, and land use). All of these resources are accounted for during the analyses.
40	Transmission lines in the Southwest have not been shown to cause high impacts relating to fragmentation. As the FEIS discusses (Section 4.6.3.1, throughout Section 4.6), such effects are expected to some degree. However, current research does not indicate that the resulting fragmentation would be "major". See response to Comment no. 31 regarding linkages.

40 recognized as the principal threats to biodiversity" disappear from consideration. Discrete mitigation measures are not adequate to the severity of such overarching impacts.

Perhaps most egregiously, once again this section fails to find a single linkage in the SPRV worthy of mitigating. See the discussion above per 3.6.8.1 and the attendant list of linkages: AGFD Arizona's Wildlife Linkages; AOLT Imperiled Movement Corridors; Sonoran Desert Conservation Plan; Hot Springs Canyon Neighborhood Wildlife Corridor Conservation Easement Project; Pinal County Open Space and Trails Master Plan; USFS Forest Legacy Program; USFWS Lower San Pedro Collaborative Conservation Initiative; Arizona State Trust Lands Rincon-Galiuro Corridor

41 **4.6.5.4 Summary of Impact Analysis Results Route Group 4:** The conclusion to this review of impacts to biological resources of the SPRV is that "Impacts to wildlife and existing or future riparian habitat at the San Pedro River crossing would be mitigated through measures SE 1, 2, 3, 4, 8, 12, and 14." This conclusion is not adequate to the SPRV's significance, sensitivity, quality and value. And again, with regard to the immitigable impacts, what reparations will be made to the public in compensation for losses to these significant ecosystem services?

42 **4.14 ENVIRONMENTAL JUSTICE 4.14.1 Introduction:** The basic parameter for consideration here is "by census tracts located within approximately 3 miles of each proposed subroute." While 3 miles from the project is too narrow for documenting impacts in natural areas, it may well be too wide in urban areas. Natural lands in conservation areas do not need power lines, and their impacts are uniformly deleterious. Urban residents are the primary seekers and beneficiaries of electric power. To apply similar standards to such divergent environments would appear to be an inequitable treatment of the impacted resources.

43 **4.17 CUMULATIVE EFFECTS:** This section would also ordinarily be of priority interest, but again the parameters of reasonably foreseeable future actions are so circumscribed that the discussion is only worthy of note on selected points. That narrowness is noted first by restricting impacts to the 10-year time line in concert with governmental plans. That may be appropriate to urban contexts, but nature of course does not work on a ten-year horizon. Once unfragmented areas, biological diversity, flight corridors and wild rivers are lost, they are not recoverable by a new ten-year plan.

Second, just as above and throughout, wider categories of impact are simply not considered. These cumulative effects should be addressed for the impacts on the main Neotropical migratory corridor in the Western U.S. (not just discrete species), or linkage issues, biodiversity, wild rivers, conservation and mitigation properties and so on. This failure is in contradiction to NEPA specifically reflected in its requirement to consider the cumulative impacts associated with a project (40 C.F.R. § 1508.25). "The point [of a cumulative impacts analysis] is that *a large overview should be maintained toward the magnitude of environmental effects,* both of the immediately contemplated action and of future actions for which the proposed action may serve as a precedent or have a cumulatively significant impact." (*Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 88-89 [2d. Cir 1975]). No such "large overview" is presented here, and thus those are not addressed.

2164	Comment Response
41	Transmission lines in the Southwest have not been shown to cause high impacts relating to fragmentation. As the DEIS discusses, such effects are expected to some degree. However, current research does not indicate that the resulting fragmentation would be "major". See response to Comment no. 31 regarding linkages.
42	Offsite, compensatory mitigation will continue to be developed with the proponent and all applicable agencies.
43	As indicated in Section 3.14 in the DEIS, EO 12898 (U.S. Department of Housing and Urban Development [HUD] 1994) requires federal agencies to address high and disproportionate environmental impacts on minority and low-income populations. Should potentially significant and adverse impacts attributable to the proposed Project fall disproportionately on these populations, environmental justice impacts would result. As noted in Section 4.14, Table 4-20 of the DEIS, High impacts occur in areas where the Project could create direct, long-term, and significant impacts to existing environmental justice populations. The methodology of assessing impacts to environmental justice populations was applied consistently within rural and urban areas. As stated in Section 4.14.2, although the type of impacts to rural and urban areas would be similar in most cases (e.g., the condemnation of a residence), the level of impact was also determined according to the proximity and density of the environmental justice population to the potential impact. For example, rural residential properties could experience moderate impacts from a distance of two miles of the transmission lines, while a residence just outside a mile from the lines could experience low impacts because of the existing lines or the presence of other structures commonly associated with a built urban environment. For these reasons populations within a 3-mile buffer are more likely to be affected by the Project (higher impacts occur up to a distance of three miles; noise and visual impacts dissipate at greater distances). Census tracts provide the most meaningful geographic unit to measure population components within the area of potential effects in rural areas, but the impacts are assessed according to inhabited structures within proximity to the Project corridor's centerline. The results indicate higher and disproportionate impacts to urban areas, due to higher population densities in proximity to the Project.

2164

44 **Table 4-30 Past, Present, Future and Reasonably Foreseeable Future Activities within Cumulative Area of Analysis:** Under "Transportation and Access," the table fails to report that the I-10 Bypass proposal is still an active proposal. While the project and the proposed route through the SPRV, which not incidentally followed a SunZia proposed routes (or vice versa) have been deferred, the project may well become active again as the economy improves and if a new infrastructure corridor is opened in the SPRV.

45 **4.17.4.3 Earth Resources:** It is noted that unauthorized use of Project access roads by OHVs could lead to loss of surface vegetation and increased erosion rates, but that "implementation of appropriate mitigation measures would reduce these effects." See **2.4.12 Mitigation** above re SE Measure 6 about the ineffectiveness of this measure in the SPRV. Cumulative impacts of this one issue could be enormously destructive over time. No data is presented on this issue even as numerous areas proximate to large urban areas have experienced virtual devastation from these impacts.

It is stated that "transmission line access roads generally include spur roads that follow contours to structure sites off a main road leading to impacts that are more discontinuous." Many access roads directly follow transmission lines, and new access routes will be required in the SPRV in any event. Without a POD this statement is meaningless.

46 **4.17.4.5 Water Resources:** It is stated that "Using BMPs and modernized mitigation measurements, most cumulative effects would be limited and, therefore, not degrade conservation efforts...." This is a speculative statement without substantiation. There is no consideration of the cumulative consequences of the immitigable impacts.

47 **4.17.4.6 Biological Resources:** "Although these effects [invasive species, erosion, water quality impacts] may occur with current and future development in the cumulative effects analysis area, standard and selective mitigation measures for the proposed Project would minimize any contribution to these cumulative effects to the extent feasible." It was noted above in the DEIS that "impacts of linear features on wildlife are mostly negative and may be difficult to mitigate." There is no consideration of the cumulative consequences of the immitigable impacts.

A few comments are in order about the DEIS treatment of bird collision with transmission lines. The DEIS clearly attempts to minimize the severity of the problem by stating that the project would not be expected to present a collision risk significant at the population level to any species in the region, that it would be a small contribution to the overall collision hazard for birds in the Southwest, and that these effects can often be mitigated with bird diverters or similar devices. Further, the statement that "recent research has shown that this risk is often overstated; the incidence of avian collision with power lines is very low," is a questionable one as it is based on one EPG study that primarily regards Sandhill Cranes amongst a plethora of research, often with contradicting results.

Whatever the veracity (or lack thereof) of the DEIS statements, the issue must be treated as a serious one since the SPRV serves as the main Neotropical migratory corridor in the Western U.S., and the Migratory Bird Treaty Act requires it. The SPRV achieves its reputation not so much by the grandeur of its water resources, but rather by attrition in other routes such as the

18

2164	Comment Response
44	Although the I-10 Bypass proposal may become active, the Arizona State Transportation Board voted to remove the proposed alternative routes through the San Pedro River Valley from future consideration.
45	Mitigation is recommended to reduce the potential for erosion. An erosion control plan within the POD will be required.
46	The statement regarding potential cumulative impacts is a reasonable estimate of the effectiveness of mitigation.
47	This comment appears to discuss direct and indirect effects of the Project, rather than the NEPA definition of cumulative impacts as stated. However, all mitigation measures to minimize the collision risk to birds will be considered as an Avian Protection Plan is developed, and any may be implemented as appropriate.

47 Rio Grande and Colorado. As such it is considerably vulnerable, especially to the recognizably declining class of Passerines that serve such a critical biological and economic function in the timberlands of North and South America.

A matter that requires attention and correction throughout the DEIS is the focus given only to the riparian area of the mainstem river. As noted before, both Skagen's study and the CWG compilation of bird lists from various locales and elevations indicate a valley-wide distribution of migration, including the many canyon oases and even xeroriparian washes transected by the 4C2c route (CWG, Pp. 64-67). Thus, a single river crossing is not the only issue, but an additional 40 miles of transit through an active flight corridor. Further, though it is true that Passerine nocturnal migrations are generally at higher elevations, they are often roosting and flocking in crepuscular light and poor weather conditions. All of these issues exacerbate the possibility of significant cumulative impacts to these populations over time. Please reference the treatment of these issues and more in CWG, Pp. 51-73.

48 **Conclusion:** It is stated that, "Development of the proposed Project, in conjunction with other present and future projects, would contribute to the ongoing fragmentation and loss of natural habitats in the Southwest. All Project subroute alternatives, including the BLM preferred alternative, would have similar cumulative impacts." The first sentence is accurate with regard to the SPRV and Aravaipa routes, but the second sentence is not true of all routes. "Subroute 4C3 would have relatively fewer biological impacts because it would pass through a large area of previous disturbance (Tucson and I-10 northwest of Tucson) [P. 2-101]."

It is also stated that "cumulative impacts would be reduced in most cases when linear utilities, including the proposed Project, are collocated." This is actually another argument in favor of the 4C3 route, since it follows 84% of existing infrastructure routes. Contrarily, if the SPRV route is approved the door is open for other infrastructure projects, as was the clear intent of SunZia's FERC application for a mile-wide EIS survey to accommodate further growth, and as the DEIS is advocating here. Even though the projects must be considered "on a case-by-case basis," no mechanism exists to stop them any more than locked gates will stop OHV traffic on the SunZia service roads. The EIS survey will be complete, objections will have been overcome, and the SPRV will be an established infrastructure. Future projects will not even require an environmental rationale. In relatively unfragmented areas like the SPRV, colocation doubles the impacts to resources because the corridor would attract further exurban growth and development, and the SPRV will become a thoroughly fragmented and altered landscape.

49 **CASCABEL WORKING GROUP CONCLUSIONS:**

The focus of these comments is the 4C2c "preferred alternative" route. CWG believes that a "No Action" response is warranted based on biological criteria. Most of these conclusions are applicable to all routes traversing the SPRV, which of course includes the 4A and 4B "Aravaipa" routes. Though CWG is not here advocating for the 4C "Tucson" route, it is the only route that makes sense from a biological standpoint. The salient points are:

2164	Comment Response
48	The decision to grant right-of-way for proposed Project would not provide a means to permit other utility projects, and would not preclude other utility projects from being constructed under the No Action scenario.
49	Comment noted, also see preceding responses.

49

- The wider "context" and overview of the SPRV route, as required by NEPA, indicates that the SPRV is a resource of "high sensitivity" on numerous bases which argues compellingly for avoidance.
- Fragmenting impacts of new roads, erosion, OHV trespass and attendant development would threaten the survival of the San Pedro River as the last major undammed river in the desert southwest
- Fragmenting impacts to the San Pedro River and 40 miles of transmission lines through the SPRV would threaten its function as the main Neotropical avian migratory corridor in the Western U.S., which is of hemispheric importance.
- Fragmenting impacts of new roads, erosion, OHV trespass and attendant development would threaten wildlife linkages between the Rincon-Catalina mountain complex and the Winchester-Galiuro mountain complex, part of over a million acres of largely unfragmented and intact landscape in the Madrean Archipelago.
- Fragmenting impacts of new roads, erosion, OHV trespass and attendant development would threaten this "hotspot" of floral and faunal biological diversity within the Madrean Archipelago.
- Fragmenting impacts of new roads, erosion, OHV trespass and attendant development would threaten $42.5 million of conservation investments in the Lower SPRV as well as substantial ongoing conservation initiatives by many agencies and NGO partners.
- Fragmenting impacts of new roads, erosion, OHV trespass and attendant development would compromise the social and economic benefits of a working landscape and the highest level of ecosystem services in the desert southwest.
- The selection of the 4C2c route fails on four of the five DEIS criteria: Maximize use of existing utility corridors and infrastructure; Minimize impacts to sensitive resources; Minimize impacts at river crossings; and Minimize impacts to military operations within the restricted airspace north of the WSMR.
- The selection and approval of the Lower SPRV as a potential NWR by the USFWS, which is in process and runs parallel to the SZ proposal for over 30 miles, is contradictory to another DOI agency (BLM) authorizing a major infrastructure corridor.

There is also a troubling component in the DEIS that at times make it appear as an advocacy piece for the applicant, rather than an impartial and objective evaluation of impacts as required by the NEPA process. It is not the point here to make accusations; that will depend on EPG responses to these and many other responders. That said, here are some of these concerns:

- Failure to review larger contextual and overview features of the SPRV resource as required by NEPA.
- Including the SPRV's 40 miles of new access within 90 miles of low-impact and collocated infrastructure traverse skewing impact averages.

2164	Comment Response
	See following page(s)

2164

50

- Failure to include the Plan of Development making it impossible to quantify and evaluate the direct impacts of the project to the SPRV resource.
- Area of ground disturbance appears to be underestimated and underreported for high-slope and rugged terrain such as the SPRV traverse would encounter.
- Failure to include any consideration of the USFWS Lower SPRV initiative in current or cumulative impact reviews.
- Failure to include consideration in current or cumulative impact reviews: The Arizona State Land Reform initiative for the Catalina-Galiuro Corridor; the Pinal County Comprehensive Plan; America's Great Outdoors Lower San Pedro River conservation initiative; the ongoing US Forest Service Forest Legacy Program; the ongoing Sonoran Desert Conservation Plan.
- Mention of the SPRV's significant function as the main avian Neotropical migratory corridor in the West is lacking.
- Throughout the DEIS consideration of the avian migration corridor appears to be limited to the main-stem river riparian area, despite extensive discussion of this point in CWG's DEIS comments submission, the majority of which appears to have been ignored.
- Despite the selection priority to maximize use of existing utility corridors and infrastructure, 4C2c is selected which parallels only 57% of existing utility or pipeline corridor, while 4C3 (the Tucson route) follows 84% of existing utility or pipeline corridor.
- Despite the selection priority to minimize impacts to sensitive resources, the highly sensitive 4C2c SPRV route is selected over 4C3 which "would have relatively fewer biological impacts…."
- Despite the selection priority to minimize riparian and river crossing impacts, 4C2c – having 40 miles of SPRV watershed traverse, crossing 6 miles of perennial rivers, 40 miles of intermittent streams, and 36 percent of the route sensitive to water resources which is the highest sensitivity of all routes – is selected over 4C3 with only one crossing of the SPRV.
- The single selection priority to minimize impacts to residential and commercial uses is deemed sufficient to preclude the 4C3 Tucson route from selection over all other priorities.
- A study area of 3 or 4 miles on each side of the project centerline in a largely unfragmented watershed like the SPRV does not satisfy the basic requirements of NEPA or the most basic tenets of ecology.
- Buehman Canyon, which 4C2c crosses, was excluded from consideration as a "Unique Water" or OAW as designated by the Arizona Department of Environmental Quality, whereas an OAW was discerned at Cienega Creek along the Tucson route.
- While finding linkages across the 4C3 Tucson route, the DEIS failed to find a single wildlife linkage in the SPRV such as: AGFD Arizona's Wildlife Linkages, AOLT Imperiled

21

2164	Comment Response
50	Comment noted, also see preceding responses.

2164

50

Movement Corridors, Sonoran Desert Conservation Plan, Hot Springs Canyon Neighborhood Wildlife Corridor Conservation Easement Project, Pinal County Open Space and Trails Master Plan, USFS Forest Legacy Program, USFWS Lower San Pedro Collaborative Conservation Initiative, Arizona State Trust Lands Rincon-Galiuro Corridor. This also ignored the CWG DEIS contributions which delineated many of these linkages.

- The terms "vacant" and "vacant/undeveloped land" for lands traversed in the SPRV implies a strong urban bias inappropriate for assessing impacts to such biological diverse areas that provide such economically valuable ecosystem services.
- The Summary of Inventory Results focuses on population centers while ignoring the vast landscapes crossed by 4C2c which provide economic livelihood for ranchers and ecosystem services of significant economic value in the southwest and western hemisphere.
- Despite noting that "Overall, however, impacts of linear features on wildlife are mostly negative and may be difficult to mitigate," there is no discussion of reparations to the public in compensation for losses to these ecosystem services from these immitigable impacts as required by NEPA.
- The parameter for consideration of environmental justice is "by census tracts located within approximately 3 miles of each proposed subroute." While 3 miles from the project is too narrow for documenting impacts in natural areas, it may well be too wide in urban areas. To apply similar standards to such divergent environments would appear to represent an inequitable and biased treatment of the impacted resources.
- The restriction of cumulative impacts to governmental ten-year plans reflects a bias toward urban contexts, since natural systems do not work on a ten-year horizon.
- The I-10 Bypass project, which had a proposed route through the SPRV, is not mentioned. Though deferred, the project may well become active again as the economy improves and if a new infrastructure corridor is opened in the SPRV.

22

2164	Comment Response
	See following page(s)

2164

Misc. Notes from SunZia DEIS, Volume 1, Chapter 3, "Affected Environment"
Ralph Waldt, Cascabel Working Group

51 **Page 3-72:** No mention is made of the fact that Arizona State law provides for the protection of numerous non-game species. The law states that these species are not to be handled, collected, or killed. Heavy construction activities and habitat destruction associated with the transmission line project will kill many of these animals. Among the species that are protected by state law that live directly within the route proposed for the SunZia transmission lines in the San Pedro Valley are the following animals:

Lowland Leopard Frog *Rana yavapaiensis*

Ornate Box Turtle *Terrapene ornata*

Desert Tortoise *Gopherus agassizii*

Gila Monster *Heloderma suspectum*

Nowhere in the DEIS is there any substantial mention of the population of *Helodermids* within the middle San Pedro Valley. This valley may stand alone as hosting the largest remaining population of this rare species in the United States.

52 **Pages 3-79:80:** Table 3-29 does not list several of the most serious noxious weeds present in the San Pedro Valley. Some of these omissions are nothing short of astonishing. Two species in particular, Tumbleweed or Russian Thistle, *Salsola iberica/kali,* and Johnson Grass, *Sorghum halepense,* are very common in the valley. The construction activities and road building planned by SunZia will undoubtedly spread these serious weeds.

53 **Page 3-84:** Your written paragraph on Lesser Long-Nosed Bats minimizes or ignores the fact that this species is reliably and commonly found in numerous locations throughout the San Pedro Valley. Your text states:

"...these populations forage within the study area occasionally."

This bat species does not use the study area "occasionally"; it uses the area on a constant, annual basis during summer months.

54 **Page 3-89:** Your document states that no recent records of jaguars within the study area exist. The Cascabel Working Group has photographs of jaguar tracks taken inside the study area during the past three years that represent clear evidence of at least two different jaguars. In November 2011 a jaguar was sighted south of this area within Cochise County. Thus it is possible for jaguars to occur here.

55 **Page 3-93:** The DEIS states that Yellow-Billed Cuckoos "may occur" within the study area. The Cascabel Working Group can provide documentation from field surveys conducted during the past several years proving that these birds are regular,

1

2164	Comment Response
51	The section regarding Arizona state law has been clarified in the FEIS (Section 3.6). Each species noted in the comment was discussed in the Biological Technical Report, Appendix B-1 of the DEIS. The ESA candidate Sonoran Desert Tortoise is discussed in the DEIS (Section 3.6.6.1, 4.6.4.5).
52	Russian thistle and Johnson grass are not listed as noxious weeds by the state, and thus were not included in Table 3-29. However, mitigation measures described in the DEIS, Noxious Weed Plan (Appendix B2 of the POD), and reclamation goals will be used to minimize or prevent the spread of any invasive plants in the Project area, and to achieve a healthy native community as temporary disturbance is restored.
53	The FEIS states that this species occurs in the study corridor regularly (Section 3.6.6.1).
54	The FEIS (Section 3.6.6.1, 4.6.4.5) discusses the current state of knowledge regarding the Jaguar, including sightings summarized in the USFWS proposal to designate critical habitat.
55	"May occur" is a reasonable statement, given the wide range of conditions present within the study corridor near each proposed river crossing. Note that the DEIS specifies that it refers to the 8-mile study corridor and not the larger study area. The DEIS (Section 3.6.9.3, 4.6.5.4, 4.5) further discusses conditions at each proposed crossing location, most of which currently lack suitable nesting habitat for the Yellow-billed Cuckoo. Nesting habitat may recover at some locations in the future.

55 breeding residents along the study route. Stating that these birds "may occur" is misleading and untrue.

56 **Page 3-96:** The information on Desert Tortoise populations within the study area is incomplete, and your designations of what constitutes high-quality habitat are based on poor fieldwork and arbitrary assumptions, not good science. Sonoran Desert Tortoises are so widespread and abundant within the middle San Pedro Valley that neglecting to designate most of the area as habitat of the highest importance and quality is stunning.

57 **Page 3-98:** No mention is made at all of the occurrence of Spikedace, *Meda fulgida,* in the perennially wet section of the river immediately downstream from the proposed SunZia transmission line river crossing point. This species is the most common fish in this section of the river. Erosion and sedimentation of the river channel caused by construction activities will degrade habitat for this species.

58 **Pages 3-108:109:** The DEIS completely ignores, and otherwise omits, the wildlife linkage zone between the Rincon, Santa Catalina, and Galiuro Mountains. The proposed route for the SunZia lines bisects the area. Not recognizing the existence and exceptional biological importance of this linkage zone is unpardonable.

Note: Mr. Waldt is a professional naturalist who spent much of his career with the Nature Conservancy.

2164	Comment Response
56	The entire San Pedro River Valley was acknowledged to be potential Sonoran Desert Tortoise habitat in the DEIS (Section 3.6.6.1, 3.6.9.3) and impact analysis.
57	The BLM and USFWS are unaware of Spikedace in the San Pedro River at this location.
58	The DEIS (Section 3.6.8) discussed linkage zones for which detailed modeling had been completed by the Arizona Wildlife Linkages Working Group. Although the referenced area was not among them, the DEIS notes the lack of existing access in a portion of this area, as well as the conservation efforts underway in the A7 Ranch and other areas. This discussion has been expanded in the FEIS (Section 3.6.7).

2191

SAHBA
the community builder
Southern Arizona Home Builders Association

Southern Arizona Home Builders Association
2840 N. Country Club Road
Tucson, Arizona 85716
Phone: (520) 795-5114
Fax: (520) 326-8665
Web: www.sahba.org

August 22, 2013

Bureau of Land Management
Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
P.O. Box 27115
Santa Fe, New Mexico 87502-0115

RE: Comments on the Draft EIS for the SunZia Southwest Transmission Project (SunZia Project)

Dear Mr. Garcia,

The Southern Arizona Home Builders Association (SAHBA) represents building industry professionals ranging from builders and developers to land planners, engineers, and trade contractors, etc. We currently have approximately 340 member companies located, or who have offices, in Pima, Cochise and Santa Cruz Counties.

1 There is concern that SAHBA member properties and current or future development projects would be negatively impacted by the SunZia Southwest Transmission Project's alternative Subroute 4C3 (Tucson) depicted in the Draft EIS/RMPA released May 25, 2012.

2 We are therefore submitting this letter to express our concerns with Subroute 4C3 (Tucson) for the Applicant's proposed transmission project. SAHBA does support the Applicant's project and prefers the Applicant's project be located within the BLM Preferred Alternative route.

In light of the potential impacts on SAHBA member companies, we respectfully request to be notified of any new information or additional venues to provide formal comment.

Thank you for your consideration on this matter.

Sincerely,

David Godlewski
President
SAHBA

2164	Comment Response
1	Comment noted. Also note that Subroute 4C3 (Tucson) is not the BLM Preferred Alternative.
2	Comment noted

2197

August 17, 2012

To:
Bureau of Land Management (BLM)
New Mexico State Office
Proposed SunZia Transmission Project
P.O. Box 27115
Santa Fe, New Mexico 87502-0115

Also submitted via email to:
NMSunZiaProject@blm.gov

These comments are submitted as an integral part of the process prescribed in the National Environmental Policy Act (NEPA) for the proposed SunZia Southwest Transmission project, specifically directed toward the draft Environmental Impact Statement (DEIS). There is no need to withhold my personal information from public review.

Part One, Introduction and Rationale for the No Action Decision

These comments provide evidence that the BLM has denied the public and stakeholders due process, and is heading toward an arbitrary decision. The BLM engaged in a two-fold denial of due process by:

1) ignoring the content of written comments that were submitted during official comment periods and through Information Quality Act requests prior to the release of the draft EIS, and
2) prohibiting public questioning of the BLM's draft EIS and presentation in public meetings.

1 By ignoring significant written comments and denying any public questioning of the draft EIS, the BLM failed to provide a sound basis for the analysis in their environmental review process and demonstrated that the agency was on the path toward making an arbitrary decision.

As a resident of the San Pedro River Valley and as a conservation activist, I have been appalled at how the BLM has handled this particular project proposal. In this instance, we had an applicant who made exaggerated claims about how this transmission project would benefit renewable energy development. These claims were challenged in credible written documents. Assurances were given by the BLM that these challenges would be addressed in the DEIS. However, after years of challenges and assurances, we are now reviewing a document that continues to make unsubstantiated renewable energy claims. To add insult to injury, the BLM prevented the public from questioning or challenging this exaggerated renewable energy narrative, or any other pertinent issue, at the recent series of public meetings. We were simply expected to listen to the agency's approved speakers and not make any public comment.

2 With the NEPA process rapidly coming to a close, the BLM has failed to earn public trust in their description of the proposed project. With more red flags falling on this project's renewable energy development claims than on those of the infamous Solyndra project, and with significant environmental issues at stake, the ***No Action*** option is the only logical decision for this project. At this point, it is probably too late in the process to effectively redress the misinformation that has been so widely disseminated by the BLM over such a long period of time

1

2197	Comment Response
1	The DEIS was made available for public review and comment on May 25, 2012. The BLM held ten public meetings and scheduled a 90-day public comment period that ended on August 22, 2012. In total, the public scoping for the SunZia project has included a total of 22 public meetings and 255 days of public comment. A 45-day public comment period is generally the time provided for a DEIS. The BLM's planning regulations and guidance require a minimum 90-day public comment period for land use plan amendments. The SunZia project may involve several BLM land use plan amendments thus the 90-day comment period was provided. The SunZia DEIS comment period meets BLM requirements and affords interested parties opportunity and time to review the document and submit substantive comments. In addition, the BLM regulations implementing the National Environmental Policy Act regulations require that all substantive comments received before reaching a decision must be considered to the extent feasible. This means that substantive comments received after the 90-day comment period have also been considered before the Final EIS was issued.
2	Comment noted

2197

3 Using the *fast track* argument as a reason for overriding meaningful and informed public participation does not meet the standards of the NEPA. Ignoring public input actually slows down the process, in the long run. Also, it is inappropriate for the agency to blame the applicant for the exaggerated renewable energy claims, since the oversight agency was fully informed of contradicting evidence *prior to the release of the DEIS*. There is a long paper trail of this evidence, and it is the BLM's responsibility to review all major assumptions that are used as the basis for their analysis.

4 As a member of my local Natural Resource Conservation District (NRCD), I know that the BLM assured the Winkelman and Redington NRCDs in three written responses and one oral response over a period of nine months that their requests for correction and disclosure regarding SunZia's energy development claims would be addressed in the DEIS. In the intervening period, the BLM continued to publish the challenged information on its website. The final response from BLM Director Robert Abbey included an agreement to add a disclaimer (addressing only two of the ten original requests for correction or disclosure) to their web-distributed scoping documents. However, as with three previous BLM responses, Mr. Abbey again stated that our other "concerns" about the BLM's project description would be addressed in the DEIS. He added that if these concerns were not addressed or acknowledged in the DEIS, we would then have to make what will be our ***fifth attempt*** to request some of the same corrections that have been out on the table since the end of the scoping comment period in September of 2010. Perhaps you can understand why I used the word *appalled* in my opening comments.

We did not have general "concerns". We had nine specific requests for correction and disclosure and one request to address systematic bias in presentation, all submitted under an act of Congress, the Information Quality Act (IQA) of 2001 (see attached Table, *Ten Specific Requests in the Information Quality Act Petition of July, 2011)*. By refusing to address or even acknowledge most of these requests, and by ignoring the substance of evidence we provided to them, the BLM continued to present the project description in a systematically biased manner in the DEIS, effectively extending SunZia's misinformation campaign to a period of at least three and a half years.

In two of the documents submitted to the BLM, the NRCDs cited a specific feasibility study regarding the relative mix of renewable and non-renewable energy resources necessary for the economic and practical success of an extra high voltage (EHV) line in this region. The BLM ignored this information, as well as other specific information we provided regarding the probable generation sources for the proposed transmission lines, and instead included over 170 pages of faulty analysis in the DEIS that was based upon an unrealistic energy development forecast.

A recent response by the BLM to another IQA petition regarding the proposed Southline Transmission Project demonstrates that the Las Cruces office of the BLM understands the requirements of the IQA. In this response, all requests for correction by the petitioner were acknowledged and addressed in some way by the responding BLM project manager. However, in the case of the SunZia IQA petition, which was initially submitted to the Santa Fe office of the BLM, none of the three responses to the original petition and the two subsequent appeals met this standard. In this particular case, the petitioners were only given vague assurances that their requests would be addressed in the DEIS, which did not turn out to be the case.

2

2197	Comment Response
3	All scoping comments and summary have been provided in the scoping report, which has been publicly available on the BLM website for the SunZia Project. All comments submitted in response to the DEIS have been cataloged and individual responses were prepared and included with the FEIS. The most current and best information was used to describe the Project and analyze impacts to resources in the DEIS. Information was reviewed and updated as appropriate for the FEIS. The FEIS indicates where text changes have been made. Please also see response to Comment No. 1 regarding public involvement.
4	Please see response to Comment No.1.

4 When I attempted to raise this information quality problem at public meetings in Tucson and San Manuel, I was told by BLM Project Manager Adrian Garcia that, by order of the Arizona and New Mexico BLM Directors, I would not be allowed to raise any issue publicly at the so-called public meetings, nor would any other stakeholder or member of the public regarding any other issue related to the proposed project.

I learned that the only two speakers approved to speak at these meetings were Mr. Garcia and Mr. Mickey Siegel, of the Environmental Planning Group (EPG), which is the BLM's hired environmental review firm. I was also told that the only questions or comments permitted under this protocol would be handled one-on-one between attendees and official representatives of the project, the BLM, and EPG. Mr. Siegel handled the majority of the 45 minute presentation at the two public meetings I attended.

In addition to their role as the BLM's EIS contractor firm, Mr. Siegel and EPG also represented one of SunZia's owners, Southwest Power Group (SWPG), in their 2001 application for a Certificate of Environmental Compatibility related to the 1000 MW natural gas powered Bowie Power Plant owned by SWPG. These two roles placed Mr. Siegel in the position of potentially advancing his former client's interest in securing additional transmission capacity for the Bowie plant by describing the proposed SunZia project, both in the DEIS and in official BLM public presentations, in a way that would best promote public acceptance of the project by the public and stakeholders at large.

5 It should be noted that the energy development aspect of Mr. Siegel's presentation focused exclusively on renewable energy resources. When Mr. Siegel was describing renewable energy resources in the southern portions of New Mexico and Arizona to a small audience at the San Manuel public meeting, I asked, "What about natural gas resources in this region?" Mr. Siegel responded that he was only covering renewable energy resources zones, and that questions needed to be held until after the presentation when they would be answered by a member of the staff.

I spoke to Mr. Siegel himself after the presentation about the role of non-renewable resources, and he responded in an evasive manner. First, he pointed to the official statement of purpose on one of the nearby posters, which made no specific claim about the primacy of renewable energy. When I raised the issue of the Energy Development Forecast in the DEIS (forecasting 81 to 94% renewable energy development), he said that renewable energy development is *the intent* of the project. When I pointed out the difference between *intentions* and a *probable development forecast* (based upon imminently pending generation projects and the factors discussed in the comments below), Mr. Siegel returned to his original formal statement of purpose and the zones of potential renewable energy he had shown in his presentation. It became obvious at that point that the discussion was going in circles, and he had no interest in addressing my original question about major non-renewable resources that are awaiting transmission capacity. Frustrating interactions such as this appear to be designed to make the public give up on asking relevant questions. In my own frustration, I told Mr. Siegel that I no longer trusted his ability to be a neutral intermediary among the oversight agency, the applicant, and the public.

Contrary to the request made by the NRCDs in their IQA petition, there is no formal statement of disclosure in the DEIS about the financial connection between the owners of the Bowie Plant and the owners of the SunZia project. With these comments, I also note that there is no statement of disclosure regarding the former business connection between a major owner of the SunZia project (SWPG) and the BLM's EIS contractor (EPG).

2197	Comment Response
5	The Bowie Power Station site is located approximately 15 miles from the TEP 345 kV transmission line corridor, and a Certificate of Environmental Compatibility has been issued for a separate (double circuit) 345 kV transmission line to allow interconnection between the Bowie Power Station and the existing TEP transmission system at the Willow 345 kV substation. The Bowie Power Station and transmission project is not part of the proposed Project. As a third party contractor for the SunZia Project, EPG has disclosed that the contractor has no financial or other interest in the outcome of the project, as required under 40 CFR 506.5(c)(3).

By controlling the message about the purpose of the SunZia project, by ignoring much of what was submitted in written form, and by forbidding publicly-raised questions during or after these official presentations, the BLM was denying the public and stakeholders any opportunity to effectively challenge the narrative about renewable energy that was being presented by their environmental contractor in the DEIS and in the public meetings.

7 With evidence that the applicant's claims for benefits to the environment are significantly exaggerated (see comments below), we need not wait until the project is constructed to learn that this particular project will significantly increase greenhouse gas emissions, contrary to the claim made in the DEIS. If we wait that long, the impacts to the San Pedro Valley will have already occurred. The San Pedro watershed contains the last remaining major natural riparian ecosystem in southern Arizona. As such, it has become the repository for conservation investments that were needed to satisfy mitigation requirements for development that has taken place elsewhere in the state. These conservation investments were made in good faith, and should not be devalued by building a major new infrastructure corridor in the last remaining major riparian watershed. This corridor will mainly benefit the very growth areas that caused the need for these conservation investments.

7 There is no evidence that this project will benefit the environment as a whole, and there is plenty of evidence that this project will cause significant harm to the San Pedro riparian ecology. A recent DEIS comment letter from the applicant's own project manager documents the environmental impacts along the BLM's preferred route through the San Pedro Valley, and he admits how difficult it would be to mitigate these impacts. Another alternative route, the so-called Aravaipa option, bisects both the lower San Pedro River Valley and the second largest unfragmented wilderness zone in New Mexico and Arizona (the Galiuro wilderness zone), which would the violate principles of conservation biology in an equally significant manner as with the preferred route, as well as violating the BLM's own directive about using rights-of-way in common. The other route alternatives through the San Pedro Valley or through the Tucson area are also unacceptable or unfeasible. ***The BLM must seriously consider alternatives to this proposed project.***

2197	Comment Response
6	Comment noted. A discussion of conservation easements along the San Pedro river and elsewhere in the project study corridor has been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.
7	Comment noted

2197

Part Two, Section-Specific Comments on the DEIS

Section 1-3: Remarkably, there is no concrete statement of need for this particular project, other than fulfilling the BLM's policy objectives to offer its landholdings for multiple uses in general and energy development in particular. In this section, there are only general references to the need for upgrading transmission infrastructure, but no reference to the pressing need for *this particular transmission project*. Without a clear statement of need for this particular transmission project, there is no statement of the problem that needs to be resolved, and no clear basis for the analysis that follows.

8 **Section 1.4:** This section on the *Applicant's Objectives* is isolated from the BLM's statement of purpose and need. However, the BLM is ultimately responsible for assessing any statement of purpose and need that the applicant embeds in his "objectives". To evade this responsibility by simply attributing these statements to the applicant is not appropriate in an environmental review document. It is the BLM's responsibility to review and substantiate all statements of purpose and need in the DEIS, since these are the very statements that are used as the basis for analyzing alternatives to the proposed project, for analyzing cumulative effects of the proposed project, and for evaluating the benefits to society and the environment.

Regarding the discussion on Renewable Portfolio Standards (RPS) in southwestern states, the BLM was informed in scoping comments, and in the previously referenced IQA petition, that there was no evidence this particular project was needed by these states to meet their RPS. On the contrary, if the entire project is ever completed, it would import renewable energy to regions that are already swimming in local resources, passing on significant costs to ratepayers in southwestern states for importing wind energy from New Mexico that tends not to be synchronized with demand in the southwestern load centers. This information was identified in scoping comments by Jon Sjogren, Norm Meader, David Omick, and Peter Else.. In fact, all southwestern states have the ability to meet their RPS without the need for imports from New Mexico. There may be other good reasons for developing new EHV transmission lines in the Southwest, but meeting modest RPS goals is not one of them.

9 **Table 1-1** makes the unwarranted assumption that all "Net Short" potential renewable generation sources are stranded with regard to transmission capacity, and thus presents an exaggerated estimate of "Net Short" in transmission capacity. This is a very misleading table that needs to be corrected or eliminated.

10 On **Page 1-7 of Section 1.4**, a statement is made that Southwest Area Transmission group (SWAT) presented the concept of the need for new 500 kV transmission in southern New Mexico and Arizona *based upon abundant wind and solar potential*. However there is no reference provided for that specific SWAT presentation. The only 2006 SWAT presentation I found in internet records included references to significant fossil fuel energy potential as well as renewable energy potential. Information on the SWAT presentation that I am referring to was given to the BLM in separate scoping comments by Sjogren, Meader, and Else. Additionally, both Meader and Else provided in scoping comments of September, 2010 extensive documentation on SunZia's interest in developing transmission capacity for fossil fueled energy resources. If the BLM cannot provide a specific reference for this statement by SWAT that was used in the DEIS, the statement needs to be removed. If the BLM cites a SWAT presentation that included fossil fuel energy, then the reference to fossil fuel energy must be included in

5

2197	Comment Response
8	As stated in Section 1.3 of the DEIS, the BLM's action is considering the Applicant's ROW application. As part of BLM's consideration of the application, it also considers the Applicant's objectives as they relate to the purpose and need for the project, as well as establishing a reasonable range of alternatives Recent projections from the Western Electricity Coordinating Council (WECC) in a table titled, "2022 Common Case Loads and RPS Requirements in WECC Region, Modified as needed for DG Assumptions" (http://www.wecc.biz/committees/BOD/TEPPC/20120106/Lists/Minutes/1/2022%20Renewables_FINAL_20120206.xlsx last visited October 2, 2012) show that approximately 55,765 GWh of new renewable generation will need to be added to the WECC Region (i.e., California, Nevada, Arizona, and New Mexico) between 2011 and 2022 in order to meet RPS. By comparison, DEIS Table 1-1 indicates a projected need for 58,654 GWh of renewables by 2020 and 70,794 GWh by 2025. The WECC analysis provides a more recent RPS analysis than Table 1-1, however, the WECC data presents similar results when compared with the DEIS data and largely substantiates the data that was presented in the DEIS.
9	As stated in the introduction to the table on DEIS p. 1-6, "Table 1-1 provides the forecast of additional energy that would be required to meet the RPS in these states (identified as Net Short), and the transmission capacity that would be needed if these energy standards were to be met entirely by solar or wind projects for the forecast years 2015, 2020, and 2025, respectively." Table 1-1 is provided as an example of the amount of renewable generation that would be required to address RPS and the associated transmission capacity; this transmission capacity could be provided through the existing transmission system, if available, or through new transmission system additions. The FEIS was modified to include a footnote to Table 1-1 as follows: "*Necessary transmission capacity could be provided through the existing transmission system, if available, or through new transmission system additions.*"
10	Section 1.4 and References of the FEIS has been modified to include the following citation: (SWAT 2006). SWAT 2006, Project Zia Transmission Planning Workshop, PowerPoint presentation given on August 17, 2006, by Bob Smith, Arizona Public Service Company; available online at http://westconnect.com/filestorage/swat_project_zia_081706.pdf (last visited October 10, 2012).

2197

the DEIS in order to meet BLM information quality guidelines. To do otherwise perpetuates the same systematic bias identified by the NRCDs in their IQA petition.

10 On the same page there are general statements about the need for increased transmission capacity for renewable energy in the Desert Southwest, but no statements from SWAT's Renewable Energy Task Force related to this particular project. This incongruity was documented by Charles Huckelberry in scoping comments.

Table 1-2 in Section 1.4 is another misleading table, apparently intended to emphasize the interest in developing "primarily renewable energy" projects within the SunZia project area. Since the table does not include all existing transmission owners within the SunZia project area, it cannot be used to once again invoke the phrase ***primarily renewable energy*** as a characterization of energy development potential. Interest expressed by several of the many local utilities in the SunZia project area does not translate into the basis for a realistic prediction of energy development. As the NRCD petitioners stated, potential interest in renewable energy is a very different concept from what is required for the practical and economical operation of an EHV line, and it bears no relationship to the increasing presence of natural gas generation in the national energy portfolio and specifically along the southern portion of the proposed transmission line(s). The chances of this project actually supporting ***primarily renewable energy*** are extremely slim, but the BLM has again allowed the applicant to mislead the public on this point in this section and in the DEIS sections related to Cumulative Effects, Global Climate Change, Alternatives to SunZia, and Economic Impacts (see specific discussions below). This directly contradicts the documented evidence that has been presented to the BLM during the scoping period and prior to the release of the DEIS, and it contradicts the disclaimers issued by the BLM in April of 2012.

11

All of the above comments on Section 1.4 are more examples of presentation bias that the NRCDs identified in their IQA petition of July, 2011. The fact that the BLM continues to present biased or unsubstantiated statements in their DEIS suggests that the agency is more interested in marketing the proposed project than presenting an objective project description However, more importantly, it provides evidence that the BLM is ignoring documentation provided by the public and stakeholders and heading toward a foregone conclusion to designate a route for this project.

Section 1-5 correctly states, *"The intent of scoping is to identify important issues related to a proposed action and its alternatives."* However, **Table 1-3 (*Summary of Issues from Scoping*)** includes no mention of the most controversial issue raised during the scoping period, which was the credibility of the renewable energy development claims that the BLM allowed the applicant or EPG to make in scoping documents. These claims were challenged in separate written scoping comments by an electrical engineering researcher, two university trained scientists, a sustainable systems specialist, and a county administrator. My own scoping comments included a request for correction to these claims, and I was told by the BLM's project manager that this request would be considered by the BLM. When no response was given several months later, I took this request to my local Conservation Districts, who filed another request for correction with specific reference to the Information Quality Act. There were two subsequent appeals, a case investigation by our Congressional representative regarding response delays, and two formal meetings with Arizona BLM officials.

12

The fact that the most controversial issue raised during the scoping period is not acknowledged in Table 1-3 contradicts the BLM's assertion that restricting public feedback to written comments alone is

2197	Comment Response
11	Table 1-2 of the DEIS provides an illustration of generation interconnection requests, including size and fuel, that were identified through transmission interconnection queues of load serving utilities within the SunZia's Project study area, and represent projects located in counties which could reasonably interconnect with the existing system or SunZia. The purpose of this illustration was to provide an example of the need for transmission service within the study area.
12	The BLM has reviewed all public comments received during scoping and the public review period of the DEIS, including late submissions. The scoping report for SunZia contains all scoping comments and was used to identify issues and alternatives for consideration during development of the DEIS. Table 1-3 provides a summary of the information contained within the scoping report. The scoping report is publicly available on the BLM's project website at http://www.blm.gov/nm/st/en/prog/more/lands_realty/sunzia_southwest_transmission.html. Public comments requesting clarification and corrections on the DEIS were used to facilitate preparation of the FEIS and to make adjustments as determined necessary by the BLM. As part of BLM's consideration of the application, it also considers the Applicant's objectives as they relate to the purpose and need for the project. Section 2.3.3.3 of the DEIS describes alternatives to new transmission including demand side generation, new generation, distributed generation, existing transmission upgrades, and Tucson area upgrades. These alternatives would not adequately address the stated purpose and need for the Project.

sufficient for the agency to *identify important issues related to a proposed action and its alternatives*. On the contrary, it appears that the agency was restricting public feedback to written comments alone in order to prevent the public exposure of this controversy. By ignoring prior written comments by stakeholders and the public and prohibiting any public questioning of the narrative presented in official public meetings, the BLM has violated the legal requirement of due process.

12 This information on renewable energy development is vital. If the energy development claims are false, then there is no sound basis to evaluate alternatives to the proposed project (see comments on Section 2.3.3.3). By not acknowledging and effectively addressing this controversial issue after all the written documentation that the BLM has received, the BLM has become complicit in the applicant's unsubstantiated claims, and the BLM has unnecessarily extended the period of disseminating *influential information* that does not meet its own information quality standards. Note that in the BLM's Information Quality Guidelines that *influential information* requires an added level of agency review prior to dissemination (Page 4 of the Guidelines). Note also that *influential information* includes "*…highly controversial information that is used to advance the BLM's priorities*" (Page 5 of the Guidelines). In this case, the policy objectives stated in Section 1-3 are the BLM's priorities.

Section 2.3.3.3 (*Alternatives to New Transmission)*: This section illustrates the need for an accurate and objective statement of purpose and need. The BLM did not provide such statements, and instead, allowed the applicant to imply unsubstantiated statements of purpose and need related to renewable energy development in the section on *Applicant's Objectives*.

13 **Section 2.3.3.3, Pages 2-38 through 2-39**, ***Demand-Side Management***: This section uses an unsubstantiated "need" of the proposed project, the alleged need for local EHV lines to meet southwestern states' RPS, as a justification for dismissing energy efficiency and demand- side management as partial alternatives to the proposed project . Since the BLM did not list this need in its statement of purpose and need (Section 1.3), and since the applicant did not provide conclusive evidence in Section 1.4 that the project is needed to meet state RPS, the premise for the argument is invalid.

14 Also, the substance of the argument for energy efficiency is totally bypassed by invoking the BLM's statement of need that is based upon fulfilling a general federal policy, i.e. the BLM's perceived bureaucratic responsibility to increase interstate transmission capacity. Fulfilling a policy does not constitute a need for a ***specific*** transmission project. There are also federal and state policies in place to increase energy efficiency, and this is why that alternative must not be dismissed based upon bureaucratic policies. It is the BLM's obligation to conduct a rigorous examination of alternatives in the region, and not simply cop out with the policy argument.

15 This section on demand-side management and energy efficiency contains no consideration of displacing some portion of current non-renewable generation sources in southern New Mexico and Arizona with renewable energy resources, as a means of providing transmission access for renewable energy. With this approach, demand-side management and energy efficiency programs would reduce the need for massive increases in transmission capacity, while existing or upgraded lines would provide access for new sources of renewable energy and reduce greenhouse gas emissions overall. Energy efficiency programs in Arizona and New Mexico have the potential to cut energy usage *significantly* (by up to 50%, relative to California efficiency standards), reducing the need for massive increases in transmission capacity. Arizona is currently under a state mandate to increase energy efficiency by 22%

2197	Comment Response
13	Comment noted. Also please see response to Comment No. 12.
14	Comment noted. Also please see response to Comment No. 12.
15	The range of reasonable alternatives was evaluated based on the purpose and need for the proposed action. Further, demand side management and energy efficiency programs may reduce the need for additional energy sources, thereby altering the portion of renewable energy required to meet RPS; however, these programs are not physically capable of creating 3,000 MW of available transfer capacity in the project area, nor would these programs provide access to potential energy sources along the path of the proposed project, including those located near the eastern terminus of the proposed project, and were therefore eliminated from detailed analysis in the DEIS as discussed in Section 2.3.3.3.

15 by the year 2020. At the same time that energy efficiency improvements are in progress, solar production in the southern part of these states, in both distributed and locally concentrated forms, has the potential to significantly increase supply at times of peak demand. This argument was made in scoping comments by Sjogren, Omick, and others, but was not considered in this section.

16 Lastly, this section ignores the obvious principle that significantly increasing power production reduces the incentive for energy efficiency. Providing a glut of new energy resources that are primarily non-renewable will discourage energy efficiency, significantly increase greenhouse gas emissions, and destroy incentives for demand-side management.

17 **Section 2.3.3.3, Page 2-39,** ***New Generation***: New large scale renewable energy generation could be accommodated in southern Arizona and southern New Mexico by upgrading existing lines and using renewable energy to partially displace existing non-renewable generation in the region. In this situation, existing non-renewable resources would be used on a dispatchable basis for reliability purposes. Also, with an alternative proposal such as the *Southline Transmission Project*, a reasonable increase in total generation could be accommodated at the same time, without developing an entirely new major infrastructure corridor through many parts of New Mexico and Arizona, as proposed by the SunZia project.

The New Mexico wind energy resources mentioned in this section would be better served by an east-west line that also provided access for wind resources along the same latitude in Arizona. There are several alternative project proposals directed at this objective, but none of these project alternatives are mentioned in this section. In a rigorous and objective analysis, all energy options and transmission alternatives would be listed in a table and discussed. This particular analysis is dismissive of all alternatives except for the proposed project. This is another example of bias in presentation and the tendency to support an arbitrary and capricious conclusion.

18 **Section 2.3.3.3, Page 2-40,** ***Distributed Generation***: While the DEIS summarily dismisses the effectiveness of distributed generation, the fact is that distributed generation has been a key factor in providing Arizona with the ability to meet its RPS, without the need for imported power. It appears that New Mexico and California will also be able to meet their RPS without importation of renewable energy, in large part due to the success of distributed or locally produced generation. This DEIS section once again invokes the general policy of increasing transmission capacity, to the exclusion of any other policies related to energy efficiency and optimum use of existing infrastructure corridors.

This section also makes the statement that distributed generation does not increase reliability, when in fact, distributed generation can provide local areas with a valuable backup to energy transported by long-distance transmission lines that are vulnerable to interruptions. The only reliable backup I have at my own residence is the solar array on my roof. Without it, I would have no power for lighting, the telephone system, and ventilation during the main grid's power outages that occur frequently, and sometimes for long duration, during storm seasons. There are now residential and commercial areas in Tucson that have thousands of kilowatts of local solar production based on rooftops. These local systems, coupled with local dispatchable generators, are a significant source of reliability. Over-dependence upon a nationwide grid greatly increases vulnerability to outages and reduces reliability of service.

2197	Comment Response
16	Comment noted
17	As stated in the Section 4.17.4.13 of the DEIS (pg. 4-319) "The proposed Southline Transmission Project (345 kV), located between southwestern New Mexico and southeastern Arizona, could transport additional electricity generated from sources in those areas; however, the purpose and need for the Southline project is different than for the SunZia Project. The Southline project's capacity would be limited according to the plan to construct portions of the proposed transmission lines within existing rights-of-way."
18	Comment noted. Please also see response to Comment No. 12.

2197

18 While distributed energy does not provide the solution to all energy issues, it could, when combined with a grid upgrade alternative such as the *Southline Transmission Project,* address the energy needs in the southern parts of New Mexico and Arizona while providing the means for exporting surplus renewable energy, whenever that point in renewable energy development occurs. This section needs to reflect the importance of distributed generation *in the context of all the other energy alternatives* in order to evaluate the distributed mode in an objective manner.

Section 2.3.3.3, Pages 2-40 to 2-41, *Existing Transmission Systems Upgrades:* The problem with the SunZia proposal, is that although the applicant is not revealing the imminent expansion of natural gas powered generation in the southern new Mexico and Arizona, in reality the SunZia transmission project is attempting to accommodate over 1000 MW of new non-renewable resources in this region, while at the same time accommodating some portion of new renewable resources. This is the actual reason why proposed line is scaled to the minimum capacity of 1500 MW. By recognizing this *elephant in the room* and dropping the whole charade about the need to transport massive amounts of renewable energy over hundreds of miles, there is an entirely different analysis that can take place in the discussion of the ***upgrade alternative***. This exemplifies why an objective statement of purpose and need is so vital to the validity of the analysis of alternatives.

19 If you eliminate the need to accommodate the excessive amount of unacknowledged new fossil fuel sources of energy, including a SunZia owner's interest in their 1000 MW of natural gas holdings, it becomes entirely possible to meet renewable energy transmission goals in southern New Mexico and Arizona, as well as accommodate an appropriate increase in non-renewable resources, by upgrading the existing transmission systems. The *Southline Transmission Project* proposes to do just that, and it must be considered in the range of reasonable alternatives.

The above discussion on the ***Upgrade Alternative*** also applies to other portions of Section 2.3.3.3:

Section 2.3.3.3, Page 2-41 through 2-43, *Tucson Area Upgrades:* With the proposed *Southline Transmission Project*, existing transmission systems can be upgraded in the Tucson Area, because *Southline* is appropriately scaled for this region.

Section 2.3.3.3, Page 2-43 through 2-44, *Double-circuit Structures:* These structures would become feasible with an appropriately scaled transmission project, such as the *Southline Transmission Project.*

Section 2.3.3.3, Page 2-44 through 2-45, *Environmental Impacts:* With the appropriately scaled *Southline Transmission Project*, there would be no need to install 500 kV lines through densely populated areas.

9

2197	Comment Response
19	The Proposed Action is for two 500 kV transmission lines with a transfer capacity of 3,000 MW to 4,500 MW, and would have an eastern terminus at the SunZia East Substation near Corona, New Mexico and a western terminus at the Pinal Central Substation near Eloy, Arizona. Please see response comment Nos. 5, 12, 15, and 17.

2197

Section 4.17.3.3, ***Energy Development Forecast Analysis:*** In the draft EIS, the BLM has apparently adopted the notion that if they insert a one paragraph disclaimer about the uncertainties of future access to the proposed transmission lines (page 4-269, top of page), they are then free to present the applicant's unsubstantiated Energy Development Forecast Analysis which:

a) bears very little relationship to the only cited economic feasibility study for an EHV line in this region, and,
b) bears even less relationship with an objective analysis of the most likely generation sources.

The disclaimer mentioned above cannot be used as an "immunity pill" against the virus of unsubstantiated energy development assumptions:

On page 4-274 are two energy development scenarios that make the assumption that 81 to 94% of the energy resources developed along the proposed lines will be renewable, with the rest being "other existing types of generation facilities". The BLM then dedicated over a third of its Cumulative Effects discussion (50 pages in **Section 4-17**) to the effects of an unrealistic energy development scenario. This Cumulative Effects section of the DEIS is effectively turned into another marketing effort to portray the project as primarily (81 to 94%) a renewable energy project. The casual reader is left with the impression that the causes of the cumulative effects are largely beneficial to the overall environment, which would tend to justify environmental impacts caused by the installation of the EHV line(s). All propaganda has a purpose, and this is the likely explanation of the underlying purpose of the exaggerated renewable energy claims. 20

The High Plains Express (HPX) Project Stage 1 Feasibility Study was cited by the local NRCDs in two of their Information Quality submissions to the BLM. This cited document makes the statement, "*For this study, the SunZia project was considered to be an integral segment of the HPX Project.*" The study concluded that the benefit/cost ratios for an EHV line in this region are most favorable with a renewable/fossil resource mix of nearly equal parts, due to the highly variable output of most renewable energy resources in the region. The conclusion was: "*A 'balanced' scenario consisting of near equal amounts of fossil and renewable energy performed the best under a range of circumstances.*" The two facility scenarios presented by the BLM on page 4-274 bear very little relationship to the optimum energy development scenario predicted by the HPX feasibility study, and thus bear very little relationship to what investors and regulators would accept as an economical and practical energy development scenario. The BLM did not provide in the draft EIS another feasibility study that would either contradict the conclusions of the HPX study or support the energy development forecast that was presented in the DEIS.

The local NRCDs in their petition, as well as others in scoping comments, also cited the "imminently pending" non-renewable energy resources located along the proposed route. These include the planned and permitted 1000 MW Bowie plant, as well as existing natural gas powered plants located in southern New Mexico, that cannot expand production without increased transmission capacity. One of the limitations of an EHV line is the high expense of providing "on-ramps and off-ramps" (substations) for transmission access. The proposed SunZia project only has six substations, and three of them are located in the region of the natural gas powered plants.

The highest estimate for non-renewable energy development in either of the energy development scenarios presented by the BLM is 580 MW, which is a gross misrepresentation of the probable

10

2197	Comment Response
20	The cumulative impact analysis in Section 4.17 of the DEIS fully evaluates potential cumulative impacts associated with development that was identified in the Past, Present and Reasonably Foreseeable Future. Reasonably foreseeable future energy developments have been identified in Table 4-30 of the FEIS, which includes the Bowie Power Station, the Afton Solar Energy Zone, and the NREL identified QRA's. The FEIS has been updated to include recent changes in the Solar PEIS and RDEP. The BLM developed the "Energy Development Forecast Analysis" (DEIS Section 4.17.3.3), consistent with BLM's approach in identifying "reasonably foreseeable development scenarios" (RFDs) for oil and gas actions, as an "an attempt to provide an analytical tool...to provide a means to assess the cumulative effects of the types of renewable energy projects that may ultimately interconnect (but at this time are unknown) with the Project" (DEIS p. 4-269). As stated in the DEIS (p. 1-7), "Federal Energy Regulatory Commission (FERC, or Commission) Order 888 provides that owners of transmission facilities make such services available on the open market. Transmission facility services are to be provided on a nondiscriminatory, comparable basis to others seeking similar services, including ancillary services..." and reiterated on p 4-274 of the DEIS, "As previously discussed, FERC Order 888 compels transmission owners to provide open access to its facilities without discrimination, including discrimination as to type of generation requesting interconnection and transmission service." Although FERC rules do not allow for discriminatory preference among generation subscribers to a transmission line, "it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation" (see DEIS, p.1-8). Table 1-1, Renewable Energy and Transmission Capacity Needed to Meet RPS, and Table 1-2, Summary of Generation Interconnection Requests to Existing Transmission Owners within the Project Area, illustrate, respectively, a need for additional renewable generation sources and a need for transmission capacity. As stated in the DEIS (p. 1-9), "Pursuant to FERC Order 888, it is noted that the locations of individual proposed projects or transmission line interconnections cannot be identified to third parties by transmission owners." Although the specific location of the proposed projects cannot be identified, DEIS Table 1-2 provided an illustration of generation interconnection requests, including size and fuel, that were identified through transmission interconnection queues of load serving utilities within SunZia's path and represent projects located in counties which could reasonably interconnect with the existing system or SunZia. The purpose of this illustration was to provide an example of need for transmission service within the study area.

2197

development of non-renewable energy resources resulting from this proposed increase in transmission capacity. The Bowie plant could contribute 1000 MW on its own, which would constitute up to two thirds of the transmission capacity on the first proposed line. Also, with natural gas based generation currently having the least expensive start-up and operating costs among large-scale energy generation modes, it is unrealistic to assume that other plants along the El Paso Natural Gas line will not wish to expand production.

20

Since SunZia has not disclosed its "anchor customers", a term used in the 2011 Federal Energy Regulatory Commission (FERC) decision, and since FERC will regulate access for all other generation sources primarily on a first come/first served basis, the BLM is in no position to support the speculation that only 290 to 580 MW of new non-renewable energy would be developed as a result of the proposed transmission project. By significantly underestimating the development of non-renewable resources, the BLM also significantly underestimated their cumulative effects, thus rendering the analysis of cumultative effects invalid.

21

Section 4.17.4.2, *Climate and Air Quality*, Pages 4-279 through 4-280, *Global Climate Change*: The lack of objective analysis is especially evident in the DEIS discussion on Global Climate Change, with the wildly speculative statement that "... *construction of either of the proposed* [SunZia] *options could potentially result in a net decrease in GHG* [greenhouse gas] *emissions relative to the No Action alternative*" (page 4-280). This assertion by the BLM totally ignores the burgeoning role that natural gas is playing in the expansion of energy resources in the Southwest when transmission capacity is available. The only scenario that has any probability of reducing GHG emissions is one in which ***no*** new fossil fuel resources are built and existing ones are replaced by renewable resources. No informed and objective observer would conclude that the SunZia project will accomplish this particular goal. This point has been made to the BLM in written scoping comments by Sjogren, Meader, Else, and others, as well as by the local NRCDs in their IQA petition. Given the extensive documentation on this issue, it is inappropriate for the BLM to allow this sort of conclusion to be presented in the DEIS. This demonstrates the lack of a good faith effort to provide the public with useful and objective information, and provides evidence that the BLM is more interested in selling this project than fulfilling its role as a neutral oversight agency in a formal environmental review process.

22

Appendix G1, Second Part, *SunZia Economic Impact Assessment Supplement on the Impacts of Potential Renewable Generation Facilities*: The identical unsubstantiated assumptions about energy development in the Energy Development Forecast were applied to the *SunZia Economic Impact Assessment Supplement on the Impacts of Potential Renewable Generation Facilities*. This portion of the SunZia economic benefits study is 121 pages in length, all based upon the unsubstantiated claim that 81 to 94% new energy development along the proposed line(s) would be renewable. Because of this faulty assumption, this is a *garbage in/garbage out* study that mainly serves to reinforce a marketing myth for the project as a whole and give the public the impression that this project will stimulate many more "green" jobs than it actually would. Since it is not the role of the BLM to act as a marketing agent for this project, this economic impact supplement must be eliminated from the EIS, and the ever-mounting effects of presenting this project in a systematically biased manner over a 3.5 year period must be addressed immediately. Since it appears at the time of this writing that the BLM is not going to revise the glaring DEIS information quality errors described in many of the comments above or hold public hearings before the end of the DEIS comment period, the best action to recommend at this late stage is the ***No Action*** decision for this particular project.

11

2197	Comment Response
21	Statement in Section 4.17.4.2 of the FEIS has been revised as follows: "With respect to climate change, renewable energy such as wind and solar have limited GHG emissions, as compared with a conventional fossil fuel-fired generating facility. The renewable energy facilities that the Project is designed to serve could potentially replace a portion of the market demand currently served by older, fossil fuel-fired power plants, or displace a portion of future demand that might otherwise be served by facilities with higher GHG emissions." The statement noted by commenter has been deleted from this paragraph.
22	The energy development scenarios as stated in Section 4.17.3.3 of the DEIS are based on reasonable assumptions of the forecasted mix of generation resources. As stated "In developing these scenarios, it is assumed that some portion of the Project's transmission capacity would be utilized by nonrenewable generation resources. As previously discussed, FERC Order 888 compels transmission owners to provide open access to its facilities without discrimination, including discrimination as to type of generation requesting interconnection and transmission service. Further, renewable generation (depending on type, location, local and regional meteorology, and other factors) exhibits certain patterns of availability and intermittency. Should buyers of renewable generation so desire, they may arrange for regulation generation services from other sources on the grid, or from within their own inventory of generation assets. Some of the generation noted above in the two options that is indicated to come from "other types of generation facilities," might be comprised from such regulation generation services and may, in fact, flow over and across all or part of the Project's transmission facilities."

2197

Part Three, Conclusion

By consistently ignoring the need to address specific requests for correction and disclosure over a 23 month period and by not acknowledging in the DEIS that exaggerated renewable energy claims were an area of concern, the BLM has significantly misled the public, stakeholders, and the media about the need for and purpose of this proposed project, as well as the closely related energy development forecast. As such, the BLM has significantly undermined the established judicial standard of fostering informed participation by the public and stakeholders in a NEPA process.

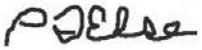
23

To treat these long-standing comments about exaggerated renewable energy claims as simply DEIS feedback would not be sufficient to repair the harm done by an extended propaganda campaign. This approach would simply repeat the same ignore-or-delay pattern established by the BLM during the first three years of the process and further extend the period of misleading the public. Vague assurances that "concerns" will be addressed at a perpetually postponed "later date" is a paternalistic approach to dealing with the public and stakeholders, one that obviously has not led to the resolution of specific issues.

Given that the BLM has refused to allow public questioning and commenting at the DEIS public meetings, has refused to extend the comment period to effectively address and revise this misleading DEIS, and has refused to even acknowledge the most controversial issue associated with the project, the only option that deserves consideration at this late stage in the process is the ***No Action*** decision.

It is with sincere regret that I have been forced to provide this negative critique of the BLM's role in the SunZia project. I have had a good relationship with the BLM in the past, and I look forward to the same in the future, particularly because of the important role that the BLM plays in the San Pedro River Valley. I postulate that the BLM was under considerable pressure from the Department of the Interior to fast track this project. However, fast tracking does not justify sacrificing information quality and meaningful public participation.

Respectfully submitted,



[signature via mouse]

Peter Else
Friends of the Aravaipa Region
P.O. Box 576
Mammoth, AZ 85618

Attachment: ***Ten Specific Requests in the Information Quality Act Petition of July, 2011***

2197	Comment Response
23	Please see responses to comments above.

2197

Ten Specific Requests in the Information Quality Act Petition of July, 2011

Request for Correction of Information Contained in Scoping Documents for the SunZia Southwest Transmission Project, submitted by the Winkelman and Redington Natural Resource Conservation Districts to the BLM

REQUEST	*RESPONSE*
1) Drop repeated phrase "including primarily renewable resources" from statements of purpose	Word "primarily" dropped on BLM web site, after two appeals, in April of 2012
2) Include all energy resources likely to gain access in statements of probable energy development	Bias toward exclusive focus on renewable resources persists in the DEIS
23 3) Transmission access statements included no mention of "stranded" non-renewable resources	DEIS continues to only discuss "stranded" renewable resources
4) Drop inference that this project is needed to meet Renewable Portfolio Standards in SW states	DEIS (page 1-7) continues to infer that this project is necessary to meet SW states' RPS
5) Retract the claim that the project would provide "economical access" to renewable energy in southern Arizona	No correction or clarification made at any point in the NEPA process thus far. No discussion of cost impacts to Arizona ratepayers
6) Disclose Federal policies regarding access to the proposed lines, with resulting uncertainties	Brief disclaimers issued by BLM, after two appeals, in April of 2012
7) Disclose potential conflict of interest between between Bowie plant and stated focus of the proposed project, and disclose potential expansion of other non-renewable resources	Not disclosed, and non-renewable resources were significantly underestimated in the Energy Development Forecast, contrary to the closely related High Plains Express Feasibility Study.
8) Disclose that applicant is not obliged to build all route segments approved, thus potentially affecting future access for NM wind resources	Not disclosed. No reference to the economic factors that will determine ultimate build-out and probable generation sources.
9) Disclose the existence of fossil-fueled plants along the proposed route	Done in one DEIS table, but significantly underestimated the future role of these plants in the Energy Development Forecast
10) Eliminate systematic bias in project description. Cease using the NEPA process as a marketing tool for the applicant.	The BLM presented applicant's unsubstantiated Energy Development Forecast, indicating 81 to 94% renewable energy development. Over 170 pages of faulty analysis in the DEIS was based upon this biased Forecast.

NOTE: *There was no acknowledgement in the DEIS that exaggerated renewable energy claims were an area of concern in scoping comments (Table 1-3). Also, the petitioners' requests were either ignored in the DEIS (items 3,4,5,7,and 8 above), or given brief responses that were subsequently dwarfed by consistently biased presentation and over 170 pages of faulty analysis.*

13

2197	Comment Response
23	Please see responses to comments above.

2206

From: Peter Warshall and Associates
To: Bureau of Land Management, New Mexico Office NMSunZiaProject@blm.gov
Re: Draft EIS for the SunZia Southwest Transportation Project
Date: August 20, 2012

Dear BLM:

Attached are our comments of the Draft SunZia environmental impact statement. Please confirm receipt of this email.

We have been asked by various organizations and individuals to prepare comments. Because of time and resources, we decided to do this work pro bono and of limited scope. Our general conclusions are as follows:

1. The DEIS does not meet NEPA standards and has grave inadequacies and incomplete and unavailable information which make a clear preferred action alternative impossible to evaluate. Some of the evidence is presented in a clearly biased format.

2. The best action at this time would be a Deferred No Action Alternative, an alternative not considered by the agency. The Deferred No Action Alternative would give the applicant and consultant (EPG) enough time to decide if they want to proceed and return with a new (greatly revised) DEIS in the future or choose the No Action alternative.

3. The only other alternative that appears reasonable is a Phased Alternative, which was not considered by the BLM/EPG. This also requires a new (revised) DEIS to be issued to the public and might address the inadequacies of the present DEIS.

4. The major problems with this DEIS are: poorly defined project and project purpose; project phasing and timing; inadequate presentation of needs and the scale and timing of project development and its environmental impacts; an economic feasibility statement that is incomplete, unavailable and remote in time and speculative in presentation; an unreasonable elimination of alternatives and mitigation measures; extensive unavailable or unobtainable information that is needed to evaluate adverse environmental and socio-economic impacts; a poor understanding of crucial NEPA terms such as "significance" as as well poor (or non-existent) definition of terms necessary for understanding a transmission line project (e.g.. transfer capacity, congestion); and apparent biases in the presentation of evidence and evaluations.

5. In short, we recommend a No Action Deferred Alternative as the least expensive; or the Phased Alternative with a completely revised DEIS re-issued to the public or a No Action alternative.

2206	Comment Response
1	The DEIS was prepared in accordance with the NEPA, Council on Environmental Quality regulations implementing NEPA, and the BLM NEPA Handbook.
2	The comment is suggesting an alternative whereby the BLM would not act on the application for the SunZia Project until some undetermined time in the future. Such an action is inconsistent with the requirements of FLPMA, pursuant to which the BLM must respond to and provide a decision on applications for rights-of-way traversing public lands. Additionally, such an alternative would not respond to the purpose and need of the proposed action. The BLM is required to only consider one "No Action" alternative, and has already done so in the DEIS. Finally, the impacts associated with a "No Action Deferred Alternative" would be identical to those of the currently analyzed "No Action Alternative" in the DEIS until the time that the action were to be implemented, at which point it would resemble the action alternatives analyzed in the DEIS. Therefore, "No Action Deferred Alternative" was not included in the FEIS
3	The "phased alternative" put forward by commenter was not previously suggested, and thus not analyzed in the DEIS. Such a "phased alternative" is not reasonable as it fails to address the purpose and need to allow for at least 3,000 MW of new transfer capability in the region. The BLM, in conjunction with SunZia Transmission, would consider phased development and construction activities. However, phased development and construction activities are not "design features," rather, they are related to mitigation and construction, operation, and maintenance activities developed following issuance of a Record of Decision, if the Record of Decision approves issuance of a right-of-way.
4	The commenter has indicated several concerns with the DEIS. Additional clarification has been provided in the FEIS to address many of these concerns. The definition of significant impacts was provided in Chapter 4 of the DEIS with respect to the analysis of each of the environmental resources, including Section 4.2.2.1, Section 4.3.2.4, Section 4.4.2.2, and others.
5	Please see response to comment nos. 2 and 3.

2206

6 Please place us on all notification lists. Thank you, Peter Watshall, PhD

Peter Warshall and Associates
350 South Grande Ave, Tucson, AZ 85745

2206	Comment Response
6	The commenter has been added to the notification list.

2206

COMMENTS ON THE PROPOSED SUNZIA TRANSMISSION LINE DRAFT ENVIRONMENTAL IMPACT STATEMENT BY PETER WARSHALL AND ASSOCIATES, August 20, 2012

7 **Caveat:** Although we understand that NEPA has no precise requirements for indexing, we note that tiering, indirect and cumulative impacts, HVTL energy conservation, significance and many other crucial terms do not appear in the index. This makes full it difficult for us and the public to fully evaluate this DEIS and we may have missed some material.

1.0 PROJECT (Section 1502.13)

8 The project description is inadequate and incomplete as to who, what, when and why. These are standard requirements of the EIS process.

9 **1.1 Who wants this project?**

This project appears to be a project of the private business firm Southwestern Power Group (SPG), which is a subsidiary of MMR. But, the DOE 2009 lists the following partners: Salt River Project, Tucson Electric Power, Energy Capital Partner, Shell WindEnergy Inc. Are these financial partners still in the project (see Socio-economic Impacts)? What is their relation to SPG? Are they responsible for construction, operations and/or mitigation?

10 **1.2 What exactly is the project? Why does this DEIS not say which of the two options is the preferred alternative of the BLM?**

The preferred project is not resolved in the DEIS. The Sun Zia project has two preferred projects with different impacts — both of which can be built:

1. Two single-circuit 500 kV AC lines that have an approved rating of 3,000 MW from the Western Electricity Coordinating Council.

1

2206	Comment Response
7	Comment noted
8	Complete information describing the BLM, the Applicant, and other agencies (who); the project description (what and when); and the purpose and need (why) is provided in Chapters 1 and 2 of the DEIS.
9	The Applicant is SunZia Transmission, LLC and includes the Southwestern Power Group with other participants. The Applicant, or the owner to be named in the Right-of-Way Grant, would be responsible for construction, operation, and mitigation.
10	The BLM Preferred Alternative could include either Option A or Option B – the two options are not alternatives. The DEIS includes an analysis of impacts resulting from either of the options, and includes an analysis of each of the alternative routes with consideration for the differences between the two options. The Applicant would reserve the right to construct a second 500 kV transmission line as either an AC or a DC line, after construction of the first 500 kV AC line.

10 2. One single-circuit 500 kV AC line and one single circuit 500 kV DC line with an estimated power transfer capacity of up to 4,500 megawatts. This option does not have approval from the Western Coordinating Council or approval is not disclosed.

The DEIS tries to resolve the preferred pathway of the high voltage transmission lines (HVTLs) and the location of four or more substations but does not indicate which of the HVTL options will be chosen. The two options have different scales (ranging from 3,000 to 4,500 MW) and will have very different indirect and cumulative impacts, impacts on HVTL energy conservation, number of substations, long-term inducement of growth, etc. that are not addressed and analyzed in this DEIS (see Environmental Impacts) for the preferred alternative.

11 **1.3 Will there be a supplemental BLM EIS?**

It is not stated if a Supplemental EIS will be issued once the final project and right-of-way is chosen. Other EISs and permits are required; it is not stated how tiering (linked EISs) will occur. The proposed project appears to be a planning document (more than a "ripe" project) since many permits, licenses and EISs are not in place and there is no Table of expected completion of these additional requirements and the financial feasibility of the project has not been demonstrated (see other sections). The route could easily change if private landowners or other landholders refuse easements or to sell, or SPG could not meet their asking price.

12 The DEIS, under the No Action Alternative, can defer the completing an EIS until the actual project is known (see below), permits and licenses have been approved or in the line for approval, tiering is known, private property owners have been notified and agreements are in process, and financial feasibility has been established. We suggest that BLM defers the DEIS until SPG makes clear its actual project (which Option) and clarifies what components, connections and configurations will actually be built and when.

13 **1.4 What is the timing and phasing of this project?**

2206	Comment Response
11	Comment noted
12	Complete information for the Project description is located in Chapter 2 of the EIS. Please also see response to Comment No. 2.
13	The assumptions used for the assessment are based on a 2 to 3 year construction period as indicated in the analysis of impacts (e.g., Climate and Air Quality and Socioeconomics), although the start of construction has not been determined. The BLM, in conjunction with SunZia Transmission, would consider phased development and construction activities. However, phased development and construction activities are not "design features," rather, they are related to mitigation and construction, operation, and maintenance activities developed following issuance of a Record of Decision, if the Record of Decision approves issuance of a right-of-way.

2206

13 The project description is inadequate and incomplete because the timing and phasing is not clearly revealed and will have different environmental and socio-economic impacts. The timing and phasing are scattered in the DEIS and at times appear contradictory. Timing and phasing do not appear in the index.

14 There appear to be three timing periods. *Construction* of the complete project is supposed to take place in three years (?) from the issuing of decision document (all described components, connections and configurations). But, at times, this is contradicted and the construction period is implied to be longer since the BLM does not know if SPG wants to build option A or option B. For instance, it states: "Configuration number 2 will depend on how much power transfer capacity is in demand by the energy market in the Desert Southwest." When will this be decided and when will the stringing of lines or the second series of towers be built? In the next three, ten, twenty or fifty years? Or, it says: "The project's construction will likely occur in phases (e.g.: line number 1 being built prior to line number 2, etc.) and segment (e.g.: portions between substations may be built and energized before subsequent similar segments, etc.)." This highly incomplete and unclear statement implies that construction is much more than three years and does not indicate whether supplemental EAs or EISs will be required.

15 The second timing period/s is a *planning period for connections* to power generators and "portions between substations may be built and energized before subsequent similar segments, etc." It is supposed to be known for each ten-year planning horizon. Ten years appears to have been chosen by BLM based on "usual" or "normal" planning periods for infrastructure development, though alternative time periods are not discussed. **The first ten-year planning period for connections and power generation is NOT described in the DEIS and the public does not know if any connections would be made as no agreements for use of the line have been signed or reported.** Readers do not know which substations will be built.

3

2206	Comment Response
14	Please see responses to comment nos. 10 and 13.
15	Although not all proposed substations may be needed, the DEIS includes the analysis of impacts that would result from construction and operation of all proposed substations.

16 The third or *operating period* (duration of right-of-ways) appears to be from the day BLM issues the permit and lasts for fifty years (though this not explicitly stated). At the end of 50 years, the permit can be denied or renewed. The DEIS does not state how this process will occur. If denied, no time-line or required bond for land restoration is given.

17 As will be repeated many times in these comments, the project application seems premature (see Incomplete and Unavailable Information) and the DEIS should be deferred until a more complete and adequate understanding of the timing and phasing and impacts are known (see Alternatives). At the moment, it is more like the "bridge to nowhere" project in Alaska.

18 **1.5 Is this a more adequate and complete project description?**

At the moment a more accurate and adequate project description would read:

SPG, a private business firm with XX financial and operational partners, has requested a 50-year right-of-way to construct two HVTLs and up to five substations. The project, at this time, has no signed agreements with power generators to utilize these lines nor with other land holders for a 50-year right-of-way. As a planning document, the timing and phasing of the construction phase as well as the connections to power generators that desire to utilize these lines have not been defined for the first ten years. Once more information is available to BLM, additional EAs or supplemental EISs will be required for each ten-year period to analyze indirect and cumulative impacts and technological alternatives that may further mitigate impacts not addressed in this DEIS. At the termination of the 50-year period, SPG may be required to remove and restore right-of-way but no arrangements have been made with BLM at this time.

SPG has proposed two options for cabling HVTLs. Both require right-of-ways for two parallel arrangements of towers and cables. This DEIS will not express a preferred option even though it recognizes that the two options have significantly differing environmental and socio-economic impacts. After SPG chooses its preferred option

2206	Comment Response
16	As stated in Section 2.4.11.3 of the DEIS, Decommissioning, structures and would be removed and disturbance ground areas would be restored at the end of the period subject to the Grant, in accordance with the Termination and Restoration Plan approved by the BLM.
17	Please see responses to comment no. 2.
18	The project description information provided in the DEIS is adequate at this time, however, it is generally recognized that additional data would be required if such studies are needed after ten years.

18 and before any groundbreaking, a supplemental EIS will be issued. This DEIS only addresses alternative HVTL routing and potential locales for potentially constructed substations.

Please use this project description in any revised drafts.

2.0 NEEDS

19 The DEIS does not make a clear distinction between the needs for this project and the purposes of the project. In this section, we comment on the needs. The needs allegedly include:

2.1 the need to relieve line congestion
2.2 the need to increase access to HVTLs for nearby new or expanded power generators
2.3 the need to provide additional electricity to meet demands, reliability and security within or near corridor especially to Las Cruces, Albuquerque, Tucson, and Phoenix
2.4 the need to provide for increased electricity demand, reliability and security within other parts of the states of AZ and NM
2.5 the need to fulfill electricity demand from adjacent Western power markets and load centers of the "Desert Southwest" — southern CA, NV, UT, CO.

20 **2.1 Is their Line Congestion?**

This need is a false claim within the DEIS and should be removed. The DEIS cites the 2009 DOE report and distorts its information and conclusions. The DOE report says: 'The ACC concluded in its order approving the Fifth Biennial Assessment that "The existing and planned transmission systems serving the Phoenix, Santa Cruz County, Tucson and Yuma areas are adequate and should reliably meet the local energy

2206	Comment Response
19	As stated in the DEIS, several needs have been identified and they have been listed by the commenter. The purpose of the Project is to meet these needs.
20	The DEIS, p. 1-6, specifically states that the DOE 2009 report, "identified the key transmission path in ***southern New Mexico*** as one of the most heavily used and congested transmission paths in the West" (emphasis added). The path referred to by this quote is Path 47, which includes the proposed SunZia transmission line route. Further, (1) as stated in the DEIS, the DOE identified Path 47 as a highly congested path; (2) a nominal 170 MW of available transmission capacity in the west-to-east direction and 0 MW of available transmission capacity in the east-to-west direction (SunZia's predominant planned power flow direction) was identified on transmission lines within Path 47; and (3) SWAT analyses illustrate an abundance of interest to interconnect renewable resources in the vicinity of Path 47 and SunZia."

20 needs of the respective areas through 2017.' *The Department [of Energy] agrees with this conclusion and no longer identifies the Phoenix-Tucson area as a Congestion Area of Concern* [italics added]." The area has been further down listed with respect to line congestion with the recession, lowering of electricity demand, changes in generation patterns and export demands. The need for a 500 kV HVTL does not appear on DOE Map 5-14. The DEIS claims there is severe line congestion.

The DEIS does not present its criteria for congestion as defined by the DOE or its consultants (see definition in DOE report). Is it U90 or U75 of the safe operating limit? Is it number of hours or percentage of year above the safe operating limit? For which lines in the DEIS study area? How many times over the last decade have transmission lines in the geographic corridor been unable to safely deliver all scheduled or desired wholesale electricity? Was this caused by line congestion or a force majeure? Amazingly, the DEIS glossary does not give a definition of "congestion" as used in this DEIS and does not refer to it in the Index.

We could not find any letters or documents from El Paso Electric, TEP, PNM, Xcel's Southwest Public Service or any of the 20 coops that defined their line congestion concerns. The only other pathway deemed a pathway of concern is Pathway 47 in southern NM, which is not addressed by this DEIS.

21 **2.2, 2.3 and 2.4. What is the need for increased reliability in the SunZia geographic area?**

22 Electric system reliability has two components—adequacy and security. Adequacy is the ability of the electric system to supply customers' aggregate electric demand and energy requirements at all times, taking account scheduled and un-scheduled outages of system facilities. Security is the ability of the electric system to withstand sudden disturbances, such as electric short circuits or unanticipated loss of system facilities. The degree of reliability can be measured by the frequency, duration and magnitude of adverse effects on electricity delivery to customers. We provide this

2206	Comment Response
21	Please see responses to comment nos. 20, 22, 23, and 24.
22	The terms are used and meant to be understood in normal manner and usage to indicate a transmission system that operates in a reliable manner. The following definitions (obtained from NERC webpage located at http://www.nerc.com/page.php?cid=1|15|122 and last accessed January 28, 2013) have been added to the glossary of the Final EIS. Reliability – In the context of the bulk power system, NERC defines reliability as the ability to meet the electricity needs of end-use customers, even when unexpected equipment failures or other factors reduce the amount of available electricity. NERC breaks down reliability into adequacy and security, defined as follows. Adequacy – Having sufficient resources to provide customers with a continuous supply of electricity at the proper voltage and frequency, virtually all of the time. "Resources" refers to a combination of electricity generating and transmission facilities, which produce and deliver electricity; and "demand-response" programs, which reduce customer demand for electricity. Security – The ability of the bulk power system to withstand sudden, unexpected disturbances such as short circuits, or unanticipated loss of system elements due to natural or man-made causes.

2206

22 definition to the consultants and BLM because it does not appear in the text or Glossary and is not indexed. The use of the word in the DEIS is inadequately explained for the purposes of a neutral document, the need for the proposed project and public disclosure.

23 The DEIS has not identified specific customers and their aggregate electric demand with reliability concerns (needs) nor does it supply any quantitative information on reliability (e.g., loop flows, outages, frequency of adverse effects on customers) that SunZia would mitigate.

24 The *future* need for reliable electricity (since present congestion and reliability are not an issue) requires the SunZia line to demonstrate that future reliability needs cannot be met by (1) a smaller scale project (such as a 375 kV line); (2) already existing (or upgraded) line/s; (3) demand-side management, roof-top ("wireless micropower") and/or "energy park" production; (4) cheaper imports that do not require SunZia; or (5) a combination of the above. Otherwise, the need for the project because of future (10? 20? 40? year) reliability issues is not demonstrated.

25 **2.2, 2.3 and 2.4. What is the need for new generators that requires the SunZia HVTL?**

The DEIS says that the SunZia line will provide increased transmission capacity. It does not demonstrate that there is a need for this size of project. Stating that there are power plants in the Southwest that need transmission lines is too vague. They can chose other lines at perhaps cheaper prices. The DEIS does not have a phasing or timeline for when 3,000 to 4,500 MW transmission might be needed by the load centers or the power generators near the SunZia geographic area and if load center needs must be transmitted by HVTLs of 500 kV.

The DEIS makes incomplete and inadequate references to SunZia geographic area needs/demands. As will be clarified below, there is no way for the reader to

7

2206	Comment Response
23	The DEIS reflects that SunZia does not have specific customers at this time. *See e.g.* DEIS, p. 4-269 ("At this time, the Applicant is not accepting, reviewing, or processing any interconnection requests."). The Applicant is seeking to fill a need for added transfer capability in the vicinity of the project, among other needs. *See e.g.* DEIS, p. 1-5. The need for added transfer capability is evidenced by the interest of generation developers to interconnect to the regional transmission system and the lack of sufficient available transmission capacity in the project area. (Also please *see e.g.* DEIS p. 1-8; DEIS Table 1-2, and response to comment no. 20.)
24	The comment incorrectly identifies the requirements of a Purpose and Need statement. As noted in 40 C.F.R. 1502.13, the Purpose and Need statement "shall briefly specify the underlying purpose and need to which the agency (BLM) is responding in proposing the alternatives including the proposed action." The section of the DEIS outlining the Purpose and Need for the project, correctly considers the mandates of FLPMA, the EPAct, and the application for issuance of a right-of-way. A "Purpose and Need" statement need not be "objectively verifiable or supported by scientifically verifiable evidence or that the EIS must prove that a project serves a particular purpose or there exists a particular need for the project." Insofar as the comment suggests that there is not a demonstrated need for the project, the comment presents a difference of opinion as to the form and type of information that could have been included in BLM's purpose and need statement. Insofar as the comment requests analysis of the alternative methods to meet a portion of the purpose and need, such analysis was performed by the BLM and is documented in DEIS Section 2.3.3. Ultimately, the comment represents a difference of opinion in how to meet a discrete portion of the identified purpose and need, but does not discuss or dispute the validity of the remaining aspects of purpose and need. Reasons that alternatives were eliminated from further analysis is fully documented in Section 2.3.3 of the DEIS. Alternatives to new transmission, such as those identified by the commenter, may be able to address a discrete portion of the need for SunZia; however, the recommended alternatives fail to address all facets of the purpose and need as identified in DEIS Section 1.3 and Section 1.4. Consequently, the DEIS Section 2.3.3, Alternatives Considered but Eliminated, discusses alternative voltage levels, existing transmission system upgrades, and demand side management (including energy efficiency) and explains why each of these alternatives were considered, but ultimately screened from further consideration because they could not meet the purpose and need of the SunZia Project. Further, no combination of the aforementioned could provide between 3,000 and 4,500 MW of new transfer capability to areas with insufficient, or no existing, high voltage transmission access (i.e., the vicinity of the SunZia East Substation).
25	The transfer capability and general location of the SunZia Project is the result of an extensive regional project planning effort that involved the participation of more than 20 organizations (representing utilities, generation developers, transmission developers, and investors) over the course of 14 project development meetings all of which occurred before the initiation of the NEPA process. Further, EIS development included two years of scoping. To the extent comments raised during scoping suggested different configurations, such alternatives were considered and ultimately rejected as unreasonable or infeasible, as documented in the DEIS Section 2.3.3, Appendix A, and the Scoping Report. Consequently, the comment is noted, but no changes are warranted, as issues identified therein have been addressed in the DEIS.

25 reasonably understand why the HVTLs should not be 375 kV or 765 kV. The existing safe operating limits of parallel or redundant lines have not been revealed. The operating capacity of existing power plants that might have reached full capacity (and perhaps encourage new generators to build new plants in the geographic area in the next ten years) has not been presented. Power generators that may close down and reduce demand for the HVTL over the 50-year life span of the project are not presented.

26 In short, increased production of electricity des not automatically transmit via SunZia and other options/alternatives and their capacities are not revealed. The establishment of the size of the need and its urgency is crucial to this DEIS. Deferral may delay construction long enough that new technologies with lower impacts and less need for SunZia as to become part of any future grid design. Urgency for this scale of project and commitment of public lands is not demonstrated.

27 In summary, the DEIS does not accurately or adequately present the needs for this scale of project. This failure triggers subsequent failures in the NEPA process. The
28 DEIS does not consider a smaller project that would meet load-center 10-20 year needs but cause lower enviro and socio-economic impacts (see Alternatives). The
29 lack of urgency and adequate information means that a No Action Deferral, a Smaller Alternative or a Phased Alternative (see Alternatives) should be considered.

30 **2.5 What are the export needs? What are import needs? Do they need the SunZia line?**

The DEIS does not adequately describe the demand or need for electricity export or import that requires the SunZia line. There is no table with anticipated export need for CA, NV, UT, and CO by decade and no indication of how much of that export would come from AZ and NM via the SunZia HVTL. There is no table indicating if AZ/NM might need to import more of their electricity from other States and if the SunZia line will be used to transmit imported power.

2206	Comment Response
26	Please see response to Comment no. 25.
27	DEIS sections 1.3 and 1.4 adequately describe the purpose and need for the proposed project. DEIS Section 4.17.3.3, Energy Development Forecast Analysis, provides an analytical tool related to the renewable energy development setting, qualified resource areas, and future renewable energy projects that would have the option to interconnect with SunZia or an existing transmission service provider.
28	Please see the response to Comment no. 25.
29	Please see the response to comment no.'s 25, 45, and 46.
30	Please see the response to Comment no. 25In addition, DEIS Table 1-1 effectively provides an analysis of anticipated export/import needs for states in the Desert Southwest.

2206

30 NM, for instance, imports electricity from Palo Verde Nuclear Power, WAPA, El Paso Electric, and Tri-State Coop. We could find no documentation that any of these utilities needs the SunZia line or plans to utilize it in the coming decade/s for transmission. Building SunZia would create irreversible and irretrievable adverse impacts when they may not be necessary.

31 Changes in near future generation patterns and effective load could reduce the need for and economics of long-distance transmission imports and exports, as SCE recently discovered with the Devers-Palo Verde 2 project. The DEIS has no scenarios, models or descriptions of area-wide transmission that might alter the BLM's choice of alternatives or favor a phased alternative.

An example of recent changes in generation patterns is the recent drop in natural gas prices, which have also changed the need for HVTLs. Transmission of gas by existing pipelines may be a viable alternative to transmission of electrons by new HVTLs. The pipeline alternative to HVTLs is not mentioned as an energy development that reduces the need for SunZia.

32 The DEIS biases information about need for SunZia. For instance, it does not quote the DOE report that reduces the urgency for such a large-scale transmission project to be approved at this time: "The cumulative effect of these and similar energy efficiency, demand response, and distributed generation measures indicate that the utilities, policy-makers and communities of the Phoenix-Tucson area are now working to manage and limit loads through customer-oriented, *non-wires* [italic added] solutions." Smaller base loads may reduce the need for SunZia.

33 **Do the contract paths limit the need or use of SunZia**? The DEIS does not describe (or we could not find them) the "contract paths" (as opposed to the "infrastructure paths") that limit wheeling electrons through the Western grid. This

9

2206	Comment Response
31	Please see the response to Comment no. 25
32	Please see the responses to comment no.'s 24 and 25. The "Purpose and Need" statements satisfy the requirements of NEPA, and thus no changes to the EIS are warranted in light of this comment.
33	Please see the response to Comment no. 25

2206

33 could be a major limit to the actual use of the SunZia line over the next 25 years. Many contract paths are fixed for this period of time.

34 **What is the transfer capability of SunZia?** We could not find any pragmatic description of transfer capability ("The measure of the ability of interconnected electric systems to move or transfer power in a reliable manner from one area to another over all transmission lines (or paths) between those areas under specified system conditions.") We note that the transfer capability from area "A" to area "B" is generally not equal to the transfer capability from area "B" to area "A." The DEIS does not mention these limitations which can reduce the need (MWs) for export/import transmission (see Unavailable and Incomplete Information).

The DEIS does not define transfer capacity (Glossary, index, text) and uses it somewhat capriciously or, at least, not in conformity with meaningful public disclosure. For instance, it says: "This approach would reduce the Project's ability to meet the intended minimum transfer capacity of approximately 3,000 MW, because a portion of the capacity of one of the two proposed transmission lines for the Project would be reserved for service to local transmission owners, and would require a more robust system to achieve the total transfer capacity." But, no where in the needs section does the DEIS say that the purpose of the project is for transfer capacity and nowhere does it describe which interconnected transfer systems that would connect to SunZia or which lines have the capacity to use commercially viable volumes of 3,000 to 4,5000 new MW and in which direction.

35 **How does SunZia HVTLs work with the three regional organizations that "govern" transmission —** WECC (and its overseer the North American Reliability Corporation), Southwestern Public Services (Southwestern Power Pool), and WAPA? The DEIS do not describe how the SunZia line options work with previous WECC transmission planning, especially Option B. WECC has not approved Option B and no explanation could be found. For Option A or B to be of value to export, the

10

2206	Comment Response
34	Please see the responses to Comment no.'s 25, 33, and 35. Additional transmission capacity is identified as a need within the DEIS, Sections 1.3 and 1.4. The transfer capacity (stated as transmission capacity or transmission capability) of SunZia is stated in the DEIS Section 1.2, Project Description and Location; Section 2.4, Description of Proposed Action and Plan of Development; and p. 4-274.i. The term "transfer capability" has been defined in the Glossary in the FEIS – "The measure of the ability of interconnected electric systems to move or transfer power in a reliable manner from one area to another over all transmission lines (or paths) between those areas under specified system conditions. The units of transfer capability are in terms of electric power, generally expressed in megawatts (MW)." The transfer capability from "Area A" to "Area B" is not generally equal to the transfer capability from "Area B" to "Area A." For clarification in the FEIS, the terms "transfer capacity," "transmission capacity," and "transmission capability" have been replaced with the term "transfer capability."
35	"The North American Electric Reliability Corporation (NERC) is an international regulatory authority established to evaluate reliability of the bulk power system in North America. NERC develops and enforces Reliability Standards; assesses adequacy annually via ten-year forecasts and winter and summer forecasts; monitors the bulk power system; and educates, trains, and certifies industry personnel … NERC assesses and reports on the reliability and adequacy of the North American bulk power system, which is divided into eight Regional Areas..." Source: NERC 2011 Summer Reliability Assessment; report last accessed January 16, 2013 and available online at http://www.nerc.com/files/2011%20Summer%20Reliability%20Assessment_FINAL.pdf. "The Western Electricity Coordinating Council (WECC) is the Regional Entity responsible for coordinating and promoting Bulk Electric System reliability in the Western Interconnection. WECC provides an environment for coordinating the operating and planning activities of its members" (WECC webpage last accessed January 16, 2013 and available at http://www.wecc.biz/About/Pages/default.aspx). The SunZia Project is located entirely within the WECC boundary, which is within the Western Interconnection. Accordingly, prior to initiation of the NEPA process, the SunZia Project underwent regional project planning and coordination activities in accordance with WECC policies and procedures. Additionally, WECC has granted Phase 3 status (i.e., Accepted Rating) for 3,000MW of transfer capability to the SunZia Project. Should the Applicant pursue the 4,500MW scenario, the Applicant would re-initiate the WECC Three-Phase Planning process to receive the necessary approvals to operate SunZia with a transfer capability of 4,500MW. The DEIS analyzed the project components that would result in the greatest amount of impact in order to account for either project configuration. For example, DEIS Table 2-6 identifies the footprint of disturbance for both configuration options; the DEIS impact analysis assumed the largest footprint for each substation regardless of configuration (i.e., Option A or Option B), thereby, analyzing the full range of environmental impacts that could result from either project configuration. Comparatively, the Southwest Power Pool Regional Entity (SPP) is comparable to WECC but for projects located within its physical boundaries. Further SPP is located within the Eastern Interconnection, a system that is electrically-separate from the Western Interconnection. WAPA, or Western Area Power Administration, is a power marketing agency of the U.S. Department of Energy that markets Federal power resources predominately to publicly-owned utilities, municipalities, and Native American tribes. WAPA is a member of WECC and

2206

35 paths must be commercially important and physically possible. It's a fast-changing world and "lock-in" of a HVTL grid for 50 years for import/export transmission needs to be evaluated and compared to a more modular and flexible approach with fewer harmful side-effects. For instance, southern CA has recently rejected an inter-connection, which might have been used with the SunZia line to export electricity. The SunZia project appears too speculative (see below) for an uncertain world of technology, markets and policy changes and locks-in an energy inefficient design for transmission. Speculation is one criteria for rejection in the BLM Handbook.

36 **2.6 Will SunZia hurt or help meeting Renewable Energy Needs?**

The SunZia is required by FERC to accept all applications for transmission. It does not matter if it is from renewable or non-renewable sources. Arizona's Renewable Energy Standard requires 15% of the state's total electricity *consumption* to come from renewable resources by 2025, with 30% of that amount to be generated from distributed sources such as rooftop solar installations. The NM mandate is 20 percent renewables by 2050. Neither State has regulations regarding *production or transmission.* Neither State has rules for what percentage of electricity transmitted by HVTLs needs to come from renewable or non-renewable sources.

37 The AZ requirement for distributed generation reduces the need for this scale of HVTLs as it is likely that "roof-top" production will occur in the load centers. The DEIS does not address whether this required reduction also reduces the need for two 500 kV transmission lines in terms of total MW that need to be transmitted by HVTLs.

38 The DEIS says: "The proposed Project would help to achieve these goals [of increased percentage of renewables]." But, it does not clearly distinguish between consumption, production and transmission. The whole presentation is not demonstrated or logical. The proposed Project could also stimulate the increase the number of coal-fired and a natural-gas-fired power plants, which would decelerate

11

2206	Comment Response
35	participates in regional project planning, but is not currently involved in the SunZia Project, nor does WAPA have any approval authority over the SunZia Project. SunZia is in the permitting stage. For the purposes of NEPA, an alternative can be screened from detailed consideration if it is too speculative. Moreover, under NEPA, the BLM is not required to consider impacts of a proposed action cumulatively with other projects that are purely speculative. Accordingly, the proposed action is not "speculative.", and the "Purpose and Need" statement complies with the requirements of NEPA. No changes are warranted in the Final EIS for the reasons outlined herein.
37	Please see the responses to Comment no.'s 24 and 25.
38	The DEIS is meant to analyze the impacts of issuance of a right-of-way to the SunZia Project. As the DEIS discloses, there are no known interconnections at this time. The Energy Development Forecast Scenarios provide an analytical framework with respect to some example configurations of interconnections, but clarifies that it is speculative at this time to identify the location, size, or sources of generation that may utilize the SunZia Project. With respect to the comment's request that the Final EIS "add all potential non-renewable power plants that might use SunZia...[and] note power plants that might wheel electricity through SunZia...," such a request is not possible at this time. As the DEIS explains, SunZia currently lacks information regarding the identity, size, or types of power plants, other transmission users or customers which may utilize the SunZia Project; thus, this type of information is purely speculative at this juncture. The SunZia Project is not anticipated to *contribute* to greenhouse gases, beyond those impacts identified in the DEIS that could occur during construction or operation. While it is possible that the proposed project could result in "a net decrease in CHG emissions…" as stated in Section 4.17.4 of the DEIS, this statement has been deleted in the FEIS because of the uncertainty; the remaining discussion is unchanged as follows: "With respect to climate change, renewable energy such as wind and solar have limited GHG emissions, as compared with a conventional fossil fuel-fired generating facility. The renewable energy facilities that the Project is designed to serve could potentially replace a portion of the market demand currently served by older, fossil fuel-fired power plants, or displace a portion of future demand that might otherwise be served by facilities with higher GHG emissions."

38 attaining the objective of reduced greenhouse gases production and has little direct impact on consumption.

There are pending applications for coal-fired power plants, including the San Juan plants, and for natural gas power plants, which are not aggregated in this DEIS. The DEIS is biased in that it does not reveal all (renewable and non-) applications or projected power plants for transmission but only those for renewable power plants. It does not emphasize that the SunZia line could facilitate an increase in greenhouse gas emissions, consumption and transmission of non-renewable energy and depletion of related water resources (see Environmental Impacts). Please delete all sections on renewable energy production that imply it will reduce greenhouse gases AND add all potential non-renewable power plants in the foreseeable future that might use SunZia. In addition, note power plants that might wheel electricity through SunZia from infrastructure and contract paths.

39 **2.7 Is Peak load or Base load the need for the SunZia?**

The DEIS does not distinguish between base load and peak load needs or demands by ten-year periods. The Southwest sometimes imports electricity to meet peak loads during hot spells when air conditioning is maximal. If the need is peak load then many alternatives not mentioned in the DEIS exist and the HVDC may not be a good alternative. As mentioned, if it is base load then the DEIS needs to show phasing by decades on anticipated increases in base loads, load centers and how SunZia is required to transmit the base load. The unanswered question in this DEIS is: **What are the economics of load balancing and what need is there for SunZia (what role would SunZia play) in wide area load balancing, if any?**

3.0 PURPOSE

2206	Comment Response
39	Please see the response to Comment no. 25. Typically, the terms “peak load” and “base load” refer to types of power generators, such terms do not refer to types of transmission. A project that is 500 miles long and 500kV transmission is intended for movement of bulk energy.

40 The purpose of a project, as conceived by the applicant SPG, is not identical with the need for a project. The general goal of any business firm is to gain market share and increase revenues. This is the *un-stated* purpose of the SunZia project. The DEIS requires some details of this purpose because it has environmental and socio-economic impacts, raises cost/benefit issues, causes irreversible and irretrievable impacts, and because the BLM is required to deny speculative and "remote" projects.

41 **3.1 Does the proposed project give SPG a natural monopoly over in-corridor, State and inter-State transmission?**

Will SPG become the largest transmission line broker (the largest supplier or wheeler of MW) with a price advantage over competitors and the ability to exclude other transmission lines from southern AZ and NM? Will the barriers to enter the electricity transmission market become so great that more energy efficient, reliable transmission lines with lower environmental and socio-economic impacts will be dismissed as duplicative by BLM? Is "lock-in" environmentally harmful? The DEIS is silent on these direct, indirect and perhaps irreversible impacts.

42 The BLM NEPA Handbook warns against projects that are speculative. Given the lack of customers and huge gaps in knowledge concerning options, demands, timing and phasing, and tiering, the SunZia line appears speculative. The DEIS does not address adverse impacts of the proposed project on future growth because it does not reveal that SPG's purpose is to build HVTLs of such a scale as to eliminate future competitors and future construction of other transmission lines. A smaller scale project or a deferred project may fulfill the needs for the next ten-twenty years without creating a natural monopoly (lock-in) that would limit BLM choices in the future and reduce impacts. An irreversible (50 year?) impact of this project is to preempt and limit, if not eliminate, actions that could be less environmentally (e.g., underground lines, co-located lines) harmful.

2206	Comment Response
40	Please see the response to Comment no. 25.
41	FERC regulates transmission pricing and energy industry transactions. The comment is outside the purview of the BLM.
42	SunZia is in the permitting stage of development. The BLM would not have initiated the NEPA process if the project had been deemed of insufficient maturity to move forward. Accordingly, the proposed action is not speculative. Potential impacts on future growth were acknowledged in the Cumulative Impacts and Irreversible and Irretrievable Impacts sections of the DEIS, (4.17 and 4.19). Smaller scale projects would not meet the purpose and need for the Project, as discussed in Section 2.3.3 of the DEIS, Alternatives Considered but Eliminated.

2206

43 **3.2 Isn't the connection to the Tres Amigos project a purpose of this project? Where is the inter-connection and Options addressed?**

Another purpose of SPG (and probably the reason for Option B) is the possibility of connecting to the Tres Amigos project. This project is not mentioned (or we could not find it, not in Index) in the DEIS yet Tres Amigos is the inter-connector that allows transfer capability to the Eastern and Texas grid systems and greatly influences the choice for or against the HVDC line. In short, the present DEIS is not acting as a full disclosure document, does not meet tiering and "outside-of-jurisdiction" requirements, and has inadequate long-term impact analysis without consideration of the Tres Amigos project.

4.0 ALTERNATIVES (Section 1502.14)

44 **4.0 Who analyzed technical aspects of alternatives for the consultants and BLM? (Section 1502.17)**

Many of the alternatives and mitigation technologies considered and eliminated were based on DEIS comments without references, In addition, there are NO civil engineers with an expertise on HVTLs and grid networks listed for either the BLM or the consultants (Chapter V). This obviously raises the question of technical expertise and the choice of the preferred alternative or components.

Section 1502.17 usually contains the name, contribution AND degrees and number of years of experience of each consultant and contributor. This DEIS lacks degree and experience and puts into question the credibility of the technical analysis.

Did SPG, for instance, supply the information that led to the elimination of alternatives or mitigation technologies? Who else (since no civil engineer – except ADOT on transportation) supplied analysis in the DEIS? If the source of information was SPG then this is a violation of NEPA requirements for full disclosure and

14

2206	Comment Response
43	The Tres Amigas Project is proposed to be located approximately 150 miles to the east of the eastern terminus of the SunZia Project, SunZia East Substation. The SunZia project description does not include an alignment that would interconnect an additional 150 miles to the east, nor has such ever been proposed by SunZia. SunZia and Tres Amigas are two separate and distinct projects, with no known interconnection opportunities.
44	The Applicant, SunZia Transmission, LLC (of which SWPG II is one of six members) has provided information to the BLM throughout the NEPA process that includes information related to the following: the Applicant's objectives and the technical considerations of the project description including construction, operation, maintenance, engineering, and conceptual design. However, SunZia Transmission, LLC has not made any decisions with respect to which alternatives were carried forward or the types of mitigation measures which were deemed infeasible. Rather, SunZia Transmission, LLC provided responses to questions posed by the BLM. Thereafter, the information was reviewed, independently verified, and incorporated into the DEIS. The responses related to engineering or project design characteristics from BLM were provided by the Applicant through one of the two engineering firms retained in support of the permitting process, POWER Engineers, Inc. ("POWER Engineers") and Kiewit Corporation ("Kiewit"). The following individuals have been added to the list of contributors in Table 5-11 of the FEIS: POWER Engineers: Mark Etherton, Managing Engineer; Jim Hsu, Principal Engineer; Arthur Kroese, Principal Engineer; Gary Kunick, Principal Engineer; and Jim Multerer, Principal Engineer. Kiewit Corporation: Neal Parece, Managing Engineer; Pierre Adam, Principal Engineer; Brent Bedillion, Principal Engineer; Kevin Needham, Principal Engineer; and Morris Stover, Principal Engineer.

44 BLM/EPG to take a neutral position in analyzing alternatives. Please send us names of civil engineers consulted for DEIS and add them to any further DEIS versions. Please add references to elimination sections.

45 **4.1 No Action Alternative: Where is the deferred no action alternative considered?**

The no action alternative has three common meanings in the NEPA process: (1) continue the present activities but do not do the proposed project; (2) continue the present activities but defer the proposed action; and (3) do not do anything.

The DEIS is inadequate because it does not consider the second meaning – the deferral of the project. The No Action Deferral Alternative seems most appropriate because (1) needs are not clear at this time; (2) significant aspects of the project are not clearly defined (e.g., the options, number of substations); (3) significant environmental impacts cannot be analyzed (e.g., the indirect and cumulative impacts of the production of greenhouse gases and water needs for power plant cooling); (4) the financial feasibility of the project has not been demonstrated (e.g., no contracts for use of the line; federal funding; ten-year financial planning); (5) technical aspects of components that could increase energy efficiency (e.g., decrease line losses) have not been subjected to a cost/benefit analysis; and much more. We suggest that the No Action Deferred Alternative is the best alternative from the point of view of NEPA compliance.

4.2 Phased Alternative

46 The DEIS does not consider a Phased Alternative. Phase 1 would construct a single line with about half the land disturbance, a different route that reduced impacts, allow for a "window" of time for fast changing transmission technologies to mature (described in Environmental Impacts and below); allow a window to see if upgrades can meet needs for various time periods, allow a window to see if base loads for

2206	Comment Response
45	Please see response to Comment No. 2.
46	Please see response to Comment No. 3.

46 transmission actually increased to the extent that two HVTLs were necessary, allow time to see if Tres Amigos happens and its implications for SunZia, and allow time to see if SunZia needs five substations and other issues mentioned in these comments.

Phase 2 would be a tiered EIS after the first ten-years of operation that evaluates the need for a second line and the advancements in technology that might mitigate or eliminate its need. If demand or need for a HVTL of HVDC or HVAC does emerge, then perhaps in ten years there will be more experience with a superconducting cable system or co-locating AC/DC lines or some other technology that will eliminate the need for a second set of towers. *No other alternative is flexible enough to accommodate technological advances.*

4.3 Capacity of SunZia Line Alternative

47 Given the unavailable and incomplete information about needs and whether the purpose is to meet local demand (within or near corridor demand vs. wide-area transfer), a smaller SunZia requires consideration. The DEIS says: "Operation of higher voltage transmission lines will result in the overbuild of facilities for the existing transmission system. Higher voltage levels would result in excess capacity and increased costs, whereas lower voltage levels would require construction and operation of additional lines. Therefore, alternative voltage levels would not be technically feasible and have been eliminated from further evaluation."

This short dismissal of the smaller (or any alternative) related to size is arbitrary and capricious. The DEIS provides no evidence of what "overbuilt" means and only suggests that a range of 3,000 to 4,5000 MW is acceptable. **Is this a business decision or an infrastructure decision?** It does not say that 6,000 MW or 2,000 MW is unacceptable. It does not address an alternative of a single 745 kV HVTL in any detail.

2206	Comment Response
47	The application for the right-of-way was submitted for two transmission lines with a combined transfer capability between 3,000 and 4,500 MW (see response to Comment no. 25). As stated in the DEIS, Table 2-3 provides typical voltage levels and associated typical transfer capabilities. Alternatives considered and ultimately rejected as unreasonable or infeasible are documented in DEIS Section 2.3.3, Draft EIS Appendix A, and the EIS scoping report.

2206

48 **What is the threshold for "excess" capacity over what time period and how was that decided? What is the threshold for "under built" capacity over what time period and how was that decided?** Where is a cost-benefit analysis? How do EPG/BLM contributors know that lower voltage levels (375 kV) will require additional construction of lines? We could not find any information of capacity of existing lines. If a 375 kV project does require additional lines, then when, where (which segment) and how many? Instead of new lines, there may be locations (segments) for upgrades, which require no new land disturbances? There may be segments that include enough alternate routes to eliminate construction shutdowns of electricity.

49 The bias for SPG's proposal with little critical appraisal in this DEIS can be seen in sentences like: "Since DSM and energy--efficiency programs do not address these needs [of transfer capacity}, they were eliminated from further consideration." But, DSM and energy-efficiency directly influence the appropriate sizing of the HVTL needed in any planning decade. If DSM, energy efficiency programs and other actions reduce the need for base load, they reduce demand and they reduce the need for a 500 kV HVTL.

50 **4.4 What are the differences between Option A and B and why isn't one option selected as the preferred project in the DEIS?**

As already stated, this DEIS does not suggest a preferred alternative for the components, connections and configurations of Option A vs. Option B. It presents no preferred alternative for the project, only for its routing. It does not fully compare environmental and socio-economic impacts and does not state if any additional NEPA work will be required once SPG decides. Not choosing between Options A and B, not providing the criteria for how the choice will be made, not presenting when it will be made and what further NEPA documents will be required opens the DEIS to severe legal difficulties.

17

2206	Comment Response
48	Please see the response to Comment no.'s 25, 47, and 52. Standard transmission voltages in the United States include 69, 115, 138, 161, 230, 345, 500, and 765 (Note: 765kV is highly uncommon and 161kV is primarily used by WAPA and is systematically being phased-out in favor of more common voltage levels). Accordingly, a "375kV" alterative has not been considered for the project as the voltage is not a standard voltage in the United States. The DEIS contains an extensive environmental cost-benefit analysis associated with the project.
49	Please see the responses to Comment no.'s 24 and 25.
50	The proposed project design features that would differ between Option A and Option B are described in the DEIS, Section 2.4. The impacts that could occur from two transmission lines with a combined transfer capability between 3,000MW and 4,500MW are described in the DEIS Section 2.4,Chapter 4 of the DEIS includes the analysis of the project components that would result in the greatest amount of impact in order to account for either project configuration. For example, DEIS Table 2-6 identifies the footprint of disturbance for both configuration options; the impact analysis assumed the largest footprint for each substation regardless of configuration (i.e., Option A or Option B), thereby, analyzing the full range of environmental impacts that could result from either project configuration. The analysis methodology was described in the introduction to Chapter 4,

2206

51 For instance, a DC line can skip substations and thereby reduce environmental impacts; it can help management loads; and it can more efficiently (fewer line losses) transmit electricity. But, the DC option apparently depends on whether the wind energy generated in NM has a market to the west (the wind power might connect to Denver or Tres Amigos). The AC line can more easily connect to substations. Two AC lines assume there are other inter-connects or load centers that have an increased demand for electricity along SunZia. The DEIS does not break down these demands by substation (see Unavailable and Incomplete Information). The above are just examples.

52 **4.7 Replacement of Existing Towers**

The DEIS says: "Given the limited redundancy of the existing system, a tear--down and rebuild in--place is considered unreasonable as it could expose consumers to significant power outages for the duration of the upgrade process." We don't deny this statement but we note that there are no references or backing for it. The description of existing environment does not address where there are limited redundant lines. NEPA warns against using phrases like "could" without any justification. What if there are specific redundant lines with ample future capacity, then consumers would not be subject to "significant" power outages. NEPA also warns against use of the word "significant" (which has a long legal history in NEPA) without providing context and intensity.

53 **4.5 Substation Components**

We do not have resources to go over all substation components in terms of cost/benefit analysis as we decided to provide our comments pro bono. A quick review makes it appear that this review may suffer the same issues as above: bias, incomplete and unavailable information that is not connected to alternatives and phasing.

18

2206	Comment Response
51	Please see the response to Comment no. 50. In addition, the proposed interconnections and differences between Option A and Option B are described in the DEIS, Section 2.4.8. The environmental impacts analysis associated with substations assumes the maximum possible environmental impacts and is included in the DEIS (see Table 2-6).
52	The quoted text within Comment 52 is located in DEIS Section 2.3.3.3, Alternatives to New Transmission, Tucson Area Upgrades (p. 2-42). Comment 52 does not dispute the validity of DEIS Section 2.3.3.3, and instead requests clarification as to the source of the statements contained therein. Please also see responses to Comment no.'s 20 and 32. (The DOE 2009 report found congestion across Path 47.)
53	The substations and their impacts were analyzed in detail in the DEIS (see response to Comment no. 51).

2206

54 **5.0 ENVIRONMENTAL IMPACTS (1502.16)**

Below are concerns about the presentation of some of the environmental impacts. We note that the DEIS is not clear on the context and intensity of impacts it considers "significant (1508.27)." Nor does it include some significant impacts that were outside the scoping process but the responsibility of the preparers.

5.1 Direct impact: inducing power plant growth
5.2 Indirect and cumulative impact: greenhouse gas emissions
5.3 Indirect and cumulative impact: water resources for cooling
5.4 Reducing line losses and energy efficiency: temperature
5.5 System efficiency: communication systems
5.6 Wind

55 **5.1 Direct impact: inducing power plant growth**

A direct impact of SunZia will be inducing power plant growth within the corridor, within the States and outside the States. A maximum and minimum scenario for the first ten years is not provided. No estimations for the following decades are provided. This renders any analysis of resulting impacts impossible. The power plant growth must be for renewable, nuclear and non-renewable sources. The DEIS uses the word "probable" with no evidence of how probable or timing.

56 **5.2 Indirect and cumulative impact: greenhouse gas emissions**

The major indirect impact of the SunZia is the increase in production of greenhouse gases by power plants that connect to its HVTL. About 30-40% of the electricity generated in NM is exported. About two-thirds of the greenhouse gases generated within NM are associated with export. 40% of the mined NM coal goes to AZ where it is used in power plants. Less than 10% of NM's natural gas is used within the State. In addition, an unknown but significant volume of greenhouse gases escape

19

2206	Comment Response
54	The DEIS provides a detailed analysis of the severity of impacts by subroute and resource. See e.g. DEIS, Sections 4.1.1, 4.2.2, 4.2.3, 4.3.2, 4.3.3, 4.4.2, 4.4.3, 4.5.1.1, 4.5.1.2, 4.5.2, 4.5.3, 4.6.2, 4.6.3, 4.6.4, 4.6.5, 4.8.2, 4.8.3, 4.9.2, 4.9.3, 4.10.1.1, 4.10.5, 4.10.6, 4.11.2, 4.12.2, 4.12.3, 4.12.4.4, 4.12.4.5, 4.13.2, 4.13.4, 4.14.2, 4.14.3.
55	As defined in the CEQ regulation, 40 CFR 1508.8(a), a "direct impact" is one of "which (is) caused by the action and occur(s) at the same time and place." As noted in the DEIS, future power plant growth may occur but would do so independently of SunZia; moreover, any such growth would not be contemporaneous with the SunZia Project. Therefore, power plant growth is not a "direct impact," as such growth would not be caused by the SunZia Project, and if it occurred, it would do so at a later point in time. See DEIS Section 4.17, and 4.17.3.3, Energy Development Forecast Analysis.
56	The identification of impacts from future power plants which may connect with the SunZia Project, would be speculative and thus not within the purview of this NEPA analysis The regulation, 40 C.F.R. 1502.22 is only applicable if there are "reasonably foreseeable significant adverse impacts" but would be inapplicable when impacts are unknown, speculative, or not "reasonably foreseeable." As stated in the DEIS, the SunZia Project is not currently accepting interconnection requests. Indirect effects "are ***caused*** by the action and are later in time or farther removed in distance, ***but are still reasonably foreseeable***." 40 C.F.R. 1508.8(b) (emphasis added). Here, no power plant expansion or construction is being caused by the SunZia Project. Such speculation is beyond the requirements of NEPA and the responsibilities of the BLM in discharging its duties under FLPMA and NEPA. A cumulative impact "is the impact on the environment which results from the incremental impact of the action when added to other past, present, and ***reasonably foreseeable*** future actions." 40 C.F.R. 1508.7 (emphasis added). Here, the DEIS does analyze the cumulative impacts of the SunZia Project with respect to past, present, and reasonably foreseeable future actions. See DEIS Section 4.17.4.

56 from pipeline leaks, gas injection plants, fluid-cracking plants and refinery processes. This leads to complications within the DEIS in describing the affected environment. How does one calculate greenhouse gases responsibilities for NM? By production, transmission or consumption? Is NM "responsible" or accountable for greenhouse gas emissions produced or consumed or that are exported by gas pipelines, coal trains or transmission lines?

While we sympathize with BLM difficulties in calculating greenhouse gas emission impacts, it is required by Section 1502.22 to state what information is unavailable or incomplete and why, if the information is relevant and significant to future adverse impacts, and how it clouds any reasonable choice of the preferred alternative. This has not been done. The DEIS has not asked for letters from Tri-State Coop, TEP, Xcel or El Paso Electric about their future generation plans and desire to connect through SunZia. They have not used models or more theoretical analyses to compensate for the extreme lack of information. The DEIS fails in its responsibility for public disclosure and analysis of greenhouse gas indirect and cumulative impacts as well as unavoidable and long-term impacts.

We also note the bias in reporting greenhouse houses. In discussing the Bowie natural gas plant, the DEIS compares its emissions to national volumes. This is not the reasonable comparison by NEPA rules about significance, context and intensity (1508.27). The DEIS uses a national context when it should be either percentage SunZia line capacity the Bowie plant would use to transmit non-renewable energy and its potential negative impact on the use of renewables via the SunZia line, especially with a priority contract. There are also other more local (county) contexts that can provide a clearer metric for the Bowie impact.

57 **5.3 Indirect and cumulative impact: water resources for cooling**

The growth inducing impact of SunZia and the construction of any nuclear, solar thermal, natural gas and coal-fired power plants will require additional volumes of

2206	Comment Response
57	Please see response to Comment no. 56.

2206

57 water for cooling. These impacts can be significant given the tight water resource context of both AZ and NM and the incomplete adjudications (e.g., Gila river basin). Water resources can limit electricity growth and the need for SunZia. Water use in energy production has its own impacts on the environment and other projects may need tiering to SunZia. As in 5.2, the DEIS makes little effort to quantify the indirect and cumulative impacts or explain which alternative best addresses the unavailable and incomplete information about water resources. As stated, we believe the No Action Deferred Alternative best fits this situation.

58 **5.4 Reducing line losses and energy efficiency: temperature, cables and coolants**

Line losses from transmission lines average about 7%. But, in the Southwest, with its extreme temperatures and predicted increase in temperatures, the lines losses are higher and have reached over 12%. Since SunZia will use non-insulated overhead cables, somewhere around 250 to 450 MW will be lost through transmission each year. This is conservative since there will also be losses at the substations. The direct impacts are energy efficiency and reliability. The DEIS does not adequately address these issues.

Distributed Temperature Sensing using optical fibers can provide real-time thermal ratings on power lines. This allows the controller to safely utilize the network to its maximum efficiency and helps predict changes that might warn of over-heating. We could find no references to "thermal" or "heat" in the index. We are not sure if a DTS is part of SunZia as a mitigating measure.

We were also unable to find (it may be there!) any reference to how to mitigate inefficiencies, control reactive power flow for reduction of losses and stabilize system voltage and safety issues with cable bundling, use of nitrogen or other wire coolants, capacitor banks, phase-shifting transformers, static VAR compensators;

21

2206	Comment Response
58	The purpose of the EIS and NEPA is to analyze impacts on the environment. The DEIS, Section 2.4, provides the detailed description of the proposed action, common to all action alternatives, and identifies the components of project design features upon which the environmental impact analysis is based. Comparatively, the comment primarily identifies design features that do not have the potential to have impacts on the environment, were already included in the analysis, or are not associated with overhead extra-high voltage transmission systems. Regardless, the project design features will be included in the Construction, Operation, and Maintenance (COM) Plan, a document that will be developed in cooperation with the BLM following issuance of the Record of Decision (ROD).

58 physical transposition of the phase conductors; and flexible AC transmission systems.

59 **5.5 System efficiency: communication systems**

A sophisticated control system is required to ensure electric generation very closely matches the demand. If the demand for power exceeds the supply, generation plants and transmission equipment can shut down which, in the worst cases, can lead to a major regional blackout, such as occurred in the US Northeast blackouts of 1965, 1977, 1996, 2003 and 2011. In addition, equipment failures can bring down significant segments of area wide transmission grids such as occurred in San Diego. In fact, over 90% of the nation's (region's) problems with electric service come from brownouts and blackouts, forced interruptions, distant line congestions, weather and equipment failures. This significant fact (which demonstrates the reliability benefits of distributive systems with grid back-up) is not addressed in this DEIS (see also Socio-Economic impacts). The DEIS also does not address service problems that may increase from SunZia and how SunZia will ensure spare capacity is available should there be a failure in another part of the network.

60 Communication systems can utilize microwaves, optical fibers and power line communication. We could find no section on the choices between these components and the benefits for transmission in the Southwest. The impacts include health, safety, reliability, energy efficiency and socio-economics.

61 **5.6 Wind**

Although the DEIS spends considerable interest on wind erosion, we could not find (index, text, Glossary) any information on wind impacts on SunZia cables. There is no map or reference to wind speed and cable tolerances that we could find. Wind speeds over 43 km/hr are considered potentially harmful on most transmission

2206	Comment Response
59	DEIS sections 2.4.6 and 2.4.7 state that the fiber optic ground wires would be used to facilitate communication, system control, and monitoring for use by the project. As this is included in the project design, the fiber optic cable and communication system is part of the analysis in the DEIS insofar as it has the ability to result in impacts on the environment.
60	Please see the response to Comment no. 59.
61	Potential wind impact on "SunZia's cables" and mitigation are design factors to be considered in the Project's operation and maintenance specifications, but this is not an impact on the human environment that would be addressed in the EIS.

61 lines, which can impact safety, reliability, and wildlife and fire ignition. Where is the discussion of this impact and mitigation?

6.0 SOCIO-ECON IMPACTS

6.1 Relationships with BLM

62 We have indicated (see nest section) that there is no reason to believe this project is economically feasible. Its implementation and completion, in the language of the BLM NEPA Handbook, are "remote or speculative." The prospect of bankruptcy is a red flag and could leave BLM (taxpayers) with clean up costs should the project break ground and then fail.

63 We have tried to show (following BLM NEPA Handbook) that the SunZia HVTL would be ineffective because the needs and purposes are not clearly defined and demand for its product (electricity) may be remote in time or not materialize in the next 25-50 years. We have modified the Handbook in stating that the project may have substantially similar effects to another alternative that could become commercially and technically feasible in the next 20 years yet would produce less severe environmental impacts; and advocated for a deferred or phased project in order, in part, to protect the BLM from legal challenges and future law suits should the project fail.

64 We emphasize that BLM is the lead agency that may be granting a natural monopoly in the Southwest and should probably have this project reviewed by federal agencies (Securities and Exchange Commission?) concerned with monopoly issues and the relationship between NEPA and locked-in private and public economic partnerships.

65 **6.2 Is the proposed project financially feasible?**

2206	Comment Response
62	Please see responses to Comment no.'s 19-30.
63	Please see response to Comment no. 45.
64	Please see response to Comment no. 41.
65	The purpose of the DEIS is to document the potential environmental effects of the Project, rather than to demonstrate or ensure economic feasibility or justify loan guarantees. The deliverability, destination, and cost-competitiveness of the electricity carried on SunZia are subject to future negotiations. Subscription of SunZia's available transmission capacity (ATC) is dependent on the customers of the transmission line (i.e., generators planning to sell energy) and their associated buyers (i.e., utilities, cooperatives, other energy consumers); therefore, it is unknown and speculative to predict which energy markets SunZia's future and currently unidentified customers may serve. (Please also see response to Comment no. 33.)

2206

65 The DEIS fails to demonstrate that the SunZia line is economically feasible. There is no reference to "costs," "cost/benefits," "economics" or "finances" in the Index. The text has no plan for the first 10 to 20 years with specific objectives or indications of financial feasibility. The DEIS documents no agreements to purchase line capacity for this period of time. The DEIS documents no agreements with load centers in and out of NM and AZ to purchase electricity through SunZia. It has not presented to the public a financing plan with specific investors and customers or any agreement for loans and/or loan-guarantees from the Federal government. It has not stated its predicted return on investment, which is linked to its ability to find investors, users of the HVTL and economic feasibility. The DEIS does not give estimated costs for the construction and operation periods which would allow for a cost/benefit analysis of alternate components, connections and configurations of the HVTL. It has not demonstrated that SPG has previous substantial experience in building and managing an HVTL project of this size nor whom it would contract to ensure its feasibility. The process requires a new draft DEIS to be issued to the public or a deferred No Action.

66 **6.3 What are the costs? Who decides if the cost is too high and how?**

The DEIS fails to provide cost/benefit analysis for every component or configuration of this project. For instance, when broaching AC lines, it says: "Converter substations require more land and are *significantly more expensive* than a typical 500 kV AC substation, rendering intermediate interconnections *cost-prohibitive* [italics added]." To determine if any component is significantly more expensive or cost-prohibitive it is necessary to know the total costs of both the substation and the project and how much the converter substations add to total costs. In addition, it is necessary to know the capital or financial resources of SPG. One company's "cost-prohibitive" component can be a small item for another company. While the evidence may be somewhere in the Appendices, we could not find it.

24

2206	Comment Response
66	Estimates of Project costs prepared by SunZia's engineers were based on typical construction practices and industry standards. Some alternative technologies or construction methods were eliminated from consideration in the DEIS by the BLM because of the potential for operational risks and maintenance concerns; untested methods and facility types could result in unreasonably high, or prohibitive construction, operation, and maintenance costs.

2206

66 It is unclear in this DEIS who decided which costs are too high or, more important, what methodology was used to determine relative costs. Many alternatives and mitigation equipment are kind of capriciously dismissed because of "high" costs. Did SPG decide and tell EPG/BLM that it was cost-prohibitive and did EPG and BLM accept their word without further analysis? It is not disclosed how these decisions to eliminate alternative equipment and grid patterns based on cost were arrived at. The failure to reveal the methodology and the lack of cost/benefit analysis is an unacceptable NEPA process.

67 **6.4 Costs of grid failure**

A reasonable adverse impact of the SunZia line in the future is grid shut downs from outages. Credit card companies, for instance, lose about $2.6 million per hour during outages. Brokerage firms can lose S6.5 million. The DEIS is required to address as best it can these catastrophic outage, the potential financial losses per decade (it describes potential revenues but not losses) and how SunZia, by connecting vulnerable businesses, may actually foster adverse economic impacts. Many business firms are building on-site micropower systems to avoid these catastrophes and these micropowers, in turn, reduce the need for HVTLs. The adverse impact is not discussed.

68 **7.0 UNAVAILABLE AND INCOMPLETE INFORMATION (1502.22)**

A major disappointment with this DEIS is its avoidance of Section 1502.22. Proper consideration of this aspect of the NEPA process would probably change the choice of preferred alternative. 1502.22 makes clear that when an agency is evaluating reasonable foreseeable impacts and there is incomplete or unavailable information, the agency must make clear that such information is lacking. When this occurs, the agency has the obligation to tell the public (1) the cost of obtaining the information was beyond a reasonable budget (cost should be indicated); (2) the means to obtain the information are unknown; (3) the relevance of the missing information to

25

2206	Comment Response
67	Grid shutdowns from catastrophic power outages would not likely be an adverse impact of the Project. On the other hand, as stated in Section 1.4 of the DEIS, the Project would be designed to increase the available transfer capability within the grid, thereby reducing congestion that may contribute to the potential for future outages.
68	The BLM has evaluated the level of information that has been acquired, and determined that the information is adequate to identify the occurrence of significant adverse impacts that may result from the Project

68 determining adverse impacts and evaluating the project, mitigations or alternatives; (4) a listing of the credible scientific and socio-economic evidence it consulted in trying to find or compensate for the lack of information; and (5) the agency's reliance on theoretical approaches, models or research methods generally accepted by the academic community that can partially indicate the scale of adverse impacts and the uncertainty of the prediction. The legal benchmarks include that the decisions not be based on conjecture, are not arbitrary and capricious, have demonstrated a sincere effort at evaluation and fall within the court's understandings of the rule of reason. This DEIS fails in this regard.

69 We note that 1502.21 prevents material based on proprietary data that is not available for review or comment by the public to be incorporated by reference. There appears to be substantial financial data incorporated into the DEIS, especially for rejecting mitigation measures and alternatives that is based on proprietary data. When an item is "too expensive" or "cost prohibitive" this is based on the financial resources of SPG and that data are not supplied.

70 Here is a partial list related to reasonable foreseeable impacts that violate some of the above understandings: the description of the project (e.g., capacity of lines), the need and purpose of the project, the future needs of segments, the life-span of the project (duration of various permits, licenses and right-of-ways), connection to other EISs and how they will be handled, feasibility and inter-connected transmission systems, out-of-jurisdiction projects (including private land purchase), transfer capacity, the indirect and cumulative impacts of power plants, greenhouse gas emissions, water resources, energy conservation, land use disturbances, foreseeable mitigation technology, tiered projects, long-term growth, irreversible impacts, financial feasibility, period of construction and ten-year connection infrastructure, and line communication systems.

—END —

2206	Comment Response
69	Please see Comment no. 68. The financial resources of the Applicant were submitted with the SF 299 application and considered proprietary; the SF 299 is incorporated by reference in Chapter 1 of the EIS.
70	The BLM believes that the list of reasonably foreseeable impacts has been adequately addressed in the FEIS. (Please see responses to previous comments.)

2207

DEBORAH K. GALE
County Administrator
(928) 865-2310

YVONNE PEARSON
Clerk of the Board
(928) 865-2072

FACSIMILE (928) 865-9332

BOARD OF SUPERVISORS
P.O. BOX 908
253 5TH STREET
CLIFTON, AZ 85533

DAVID GOMEZ
District 1

RON CAMPBELL
District 2

RICHARD LUNT
District 3

August 22, 2012

SunZia Southwest Transmission Project
C/O EPG, Inc.
4141 North 32nd Street, Suite 102
Phoenix, Arizona 85018

Email: NMSunZiaProject@blm.gov
Bureau of Land Management
Adrian Garcia, BLM Project Manager

Re: SunZia Southwest Transmission Project's

Dear Mr. Garcia:

The Greenlee County Board of Supervisors supports this project. We feel that future growth depends upon having an adequate infrastructure. An adequate Power Grid is foundational to continued development and economic growth in the region.

1 The County first choice is a route not analyzed in the Environmental Impact Statement (EIS). We feel that exclusion of this route is a flaw in the EIS. This route is from Lordsburg through the Duncan Area then to the Willow substation. This route could follow existing power lines and would have the least total impact on the land. We understand that this route was not evaluated because it is longer hence more expensive. Some considerations in our choice are that the County's major industry is the mine at Morenci and the power line development reflects a planning horizon of 50 to 100 years. As the mine continues to operate and grow, they will need adequate and additional power. While spur lines could be constructed as needed, the County's choice would eliminate some future infrastructure construction.

2 The County's second choice follows B121, B160a, B160b, and B170. Also, this route is labeled the preferred 2008 route. The 2nd choice route goes north of the primitive area and is shorter than the EIS preferred route. The EIS preferred route and the County's 2nd choice would have similar visual impacts from the primitive area. Visual impact from I-10 would be greater with the preferred alternative. As a note, we had to look very hard to find the primitive area during the public meetings and we appreciate that in the final documents the area is clearly defined.

2207	Comment Response
1	The alternative route that would be in the Duncan area was eliminated because it would add an additional 14 miles of transmission line (including new access roads), offer no environmental advantage over other more direct routes, and would be substantially similar in purpose and function to Subroute 3A. As stated in the DEIS Section 1.4, the purpose of the Project is to provide new 500 kV transmission lines to deliver electricity to western power markets and load centers in the desert Southwest. A power path is provided by the existing Tucson Electric Power 345 kV transmission lines between the proposed SunZia Willow-500kV Substation and the Duncan area, which would allow for electricity carried on the SunZia transmission lines to be delivered to the Duncan/Morenci area.
2	Comment noted. In response to public input received on the DEIS, the route indicated by the County, Subroute 3A, has been selected by the BLM as the Preferred Alternative. Subroute 3A was selected with a modification to the alignment (now Subroute 3A2) for mitigation near the Hot Well Dunes OHV recreation area.

2207

While not affecting Greenlee County, the selected route to the west must avoid and minimize impacts.

3 Also, we feel that suggestions which are foundational to the do-nothing alternative such as implementing conservation measures and increasing technologic management, while commendable, are short sighted and counterproductive. Our economy is dependent on a continuous and dependable power supply. Power delivery needs to grow and to be redundant as new technology is implemented that allows better management of our resources. These issues are beyond the Environmental Impact Statement but are equally important considerations.

We thank you for this opportunity to comment and should you have additional question please contract at (928) 865 2072.

Sincerely,

Richard G. Lunt

Richard Lunt
Greenlee County Board of Supervisors

2207	Comment Response
3	Comment noted

2221

From: Randy Serraglio
To: BLM_NM_SunZia_Project
Subject: SunZia DEIS comment letter
Date: Wednesday, August 22, 2012 4:39:49 PM
Attachments: CBD SunZia DEIS comments 8.22.12.pdf

Please see below and attached. Thank you.

Randy Serraglio
Southwest Conservation Advocate
Center for Biological Diversity
PO Box 710
Tucson AZ 85702-0710
(520) 784-1504

August 22, 2012

Adrian Garcia, Project Manager
Bureau of Land Management
SunZia Southwest Transmission Line Project
P.O Box 27115
Santa Fe, NM 87502-0115
Submitted via electronic mail to NMSunZiaProject@blm.gov

Re: Comments on the Draft Environmental Impact Statement and Resource Management Plan Amendments for the SunZia Southwest Transmission Project

Dear Mr. Garcia:

The Center for Biological Diversity appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) and Resource Management Plan (RMP) Amendments for the SunZia Southwest Transmission Project. The Center is a national non-profit conservation organization headquartered in Tucson, AZ, with more than 375,000 members and supporters, more than 10,000 of whom reside in Arizona and New Mexico. The Center is dedicated to the protection of threatened and endangered species and their habitats. Our members have a keen interest in the SunZia project and its impacts on the species and places we work to protect.

The Center has signed onto comments submitted by the Grand Canyon Chapter of the Sierra Club. As a member organization of the Coalition for Sonoran Desert Protection, we also support comments submitted by the Coalition, as well as those submitted by Cascabel Working Group, Defenders of Wildlife, Tucson Audubon Society, and Friends of Aravaipa.

1 In particular, we would like to highlight comments directed toward the purpose and need of this project and the process of analysis as it has been conducted to date. We believe that the consistent misrepresentation of this project as being primarily for renewable energy is damaging to the integrity of the process and the public's participation in it. Not only is

2221	Comment Response
1	As stated in the DEIS (p. 1-7), "Federal Energy Regulatory Commission (FERC, or Commission) Order 888 provides that owners of transmission facilities make such services available on the open market. Transmission facility services are to be provided on a nondiscriminatory, comparable basis to others seeking similar services, including ancillary services..." and reiterated on p 4-274 of the DEIS, "As previously discussed, FERC Order 888 compels transmission owners to provide open access to its facilities without discrimination, including discrimination as to type of generation requesting interconnection and transmission service." Although FERC rules do not allow for discriminatory preference among generation subscribers to a transmission line, "it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation" (see DEIS, p.1-8). Table 1-1, Renewable Energy and Transmission Capacity Needed to Meet RPS, and Table 1-2, Summary of Generation Interconnection Requests to Existing Transmission Owners within the Project Area, illustrate, respectively, a need for additional renewable generation sources and a need for transmission capacity.

2221

there no guarantee that any of the power conducted through the lines will be renewable, it seems far more likely that it will primarily serve the natural gas interests of SunZia's investors.

2 Also, the BLM has utterly failed to encourage and accept public involvement at a level appropriate and necessary for such a controversial project. No true public hearings were conducted, even in the face of numerous written and oral requests from the public for such opportunities to comment. Moreover, for a huge, sprawling project that spans two states and impacts hundreds of sensitive areas and species of high conservation value and import, including several threatened and endangered species, the standard 90-comment period is clearly inadequate to allow for proper analysis and comment on the DEIS by members of the public. Yet, despite numerous calls for an extension of the comment time period, the BLM refused, and even refused to make a decision on an extension until just before the comment deadline. We fear that this failure to uphold the spirit and intent of the National Environmental Policy Act has fatally compromised the integrity of this process.

For these reasons and others, the BLM should halt progress on this project immediately and reopen the public comment period. Considering the flawed process, the misleading purpose and need statements, and the many unacceptable impacts to important natural resources across two states, we reiterate that the "No Action" alternative is the only reasonable selection at this time.

Thank you again for considering our comments.

Sincerely,

Randy Serraglio
Southwest Conservation Advocate
Center for Biological Diversity

2221	Comment Response
2	The DEIS was made available for public review and comment on May 25, 2012. The BLM held ten public meetings and scheduled a 90-day public comment period that ended on August 22, 2012. In total, the public scoping for the SunZia project included a total of 22 public meetings and 255 days of public comment. A 45-day public comment period is generally the time provided for a DEIS. The BLM's planning regulations and guidance require a minimum 90-day public comment period for land use plan amendments. The SunZia project may involve several BLM land use plan amendments thus the 90-day comment period was provided. The SunZia DEIS comment period meets BLM requirements and afforded interested parties opportunity and time to review the document and submit substantive comments. In addition, the BLM regulations implementing the National Environmental Policy Act regulations require that all substantive comments received before reaching a decision must be considered to the extent feasible. This means that any substantive comments received after the 90 day comment period was considered as much as possible.

2259

From: Russell Lowes
To: BLM_NM_SunZia_Project
Cc: Norm Meader; Sandy Bahr
Subject: Comments on SunZia due 8/22/12
Date: Sunday, August 19, 2012 1:39:34 PM
Attachments: 6a00d8341bf80c53ef0167690d290e970b-800wi
6a00d8341bf80c53ef017744083971970d-800wi

Hello,

These comments are turned in before the deadline of August 22, 2012. Thank you for including them in the overall comments on the Draft Environmental Impact Statement on the SunZia project. These comments have been published on Blog For Arizona (at http://www.blogforarizona.com/blog/2012/08/sunzia-the-making-of-a-slave-state-first-power-then-transmission.html)and on www.SafeEnergyAnalyst.org (at www.SafeEnergyAnalyst.org)

Russell Lowes
Energy Chairman, Sierra Club Rincon Group
Research Director, www.SafeEnergyAnalyst.org

SunZia: The Making of a Slave State, First Power then Transmission

Why does Arizona tolerate it? Why do its citizens tolerate it? Who benefits by creating a slave-state status for Arizona?

by Russell Lowes, www.SafeEnergyAnalyst.org and

Energy Chair for the Sierra Club Rincon Group

Some states in this fine nation export goods in such a way as to benefit all or many within the state. Let's take the examples of maple syrup from Vermont, fish catch from Alaska, honey from Utah, or high-technology solutions from California. All of these examples incur some handsome benefits for many or all of the state population in export revenue. That revenue can come in the form of tax revenue or in the form of business income, and perhaps high numbers of jobs provided or even more intangible benefits, like crop pollination.

1 Not so with energy exports of Arizona. With more than a third of our electricity being exported, there is very little benefit to any significant population of this state. Sure there are some construction jobs that actually don't go to out-of-state construction workers, and really do go to in-state residents. Sure there are some maintenance jobs for running these plants that also go to in-state residents of Arizona.

However, there are a scant number of jobs in coal, gas or nuclear power production. For every million invested in coal production, only 6 jobs are produced. Fossil-fuel and nuclear plants are capital intensive industries, where the money goes largely for capital-intensive power plant and construction components, many of which are produced overseas.

In contrast to 6.9 jobs for coal and 4.2 jobs per million dollars spent on nuclear energy, solar energy installation produces about 13 jobs per million dollars spent. Whenever you put money toward low job-producing options, you deplete funds for higher jobs-producing options. To put money into coal and nukes reduces overall employment, because that money would have gone to other projects, or perhaps even just into more discretionary spending, which has a much higher jobs output than 4.2 or 6.9 jobs per million dollars spent.

2259	Comment Response
1	Comment noted

2259

Energy exports from Arizona are not taxed in any significant way that would bring further benefits to the state, except for property taxes that benefit the local areas a bit. We do not tax the payroll that goes for power plant components from out-of-state -- and mostly out-of-country -- workers who create these parts and machinery for the coal, nuclear and natural gas plants. We do not put a sales tax on the exported energy. We do not tax the income of the out-of-state corporations like Bechtel, GE-Hitashi, Toshiba-Westinghouse or others who build these plants.

2 Then comes SunZia, which some think of as Sunzilla, a monster transmission facility. This system would transport electricity from coal and natural gas producing plants right through Arizona. The company behind SunZia, SouthWestern Power Group, would have you believe that the 16-story high transmission lines would primarily transmit renewable energy. However, every one of their many options for routing their transmission lines goes by a planned fossil-fuel plant in southeastern Arizona.

The owners of the Bowie fossil-fuel plant and SunZia apparently own no renewable energy facilities to speak of. This is a good example of green-washing, where they promise renewables and then you actually deliver dirty energy. Explicitly put, they are using renewables as a cover to deliver their dirty fossil fuel plant.

It is SouthWestern Power Group, in fact, that wants to build a large natural gas plant north of the Chiracauhua Mountains, near Bowie. It would pollute the air of Chiracauhua National Monument, the Coronado National Forest lands, the Wilcox Playa and the Wilcox area. This plant is east of Tucson, toward the New Mexico boundary line.

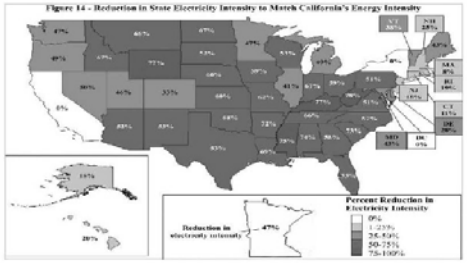
The wind from this facility would blow pollutants to Tucson during our hot summer months. This fossil-fuel plant would pollute a large region including parts of Arizona, New Mexico and Mexico. Of course, winds don't stop at boundary lines, so the pollution, like all pollution of fossil and nuclear plants, would thin out and spread globally.

3 There is no need for this huge transmission line. Instead, there is a large precedent for energy efficiency improvement in the U.S., in the Southwest and in Arizona. The Arizona Corporation Commission, which is a top regulator for electricity and its transmission in Arizona, has established a requirement for Arizona of 22% reduction in power production in Arizona by 2020. This large electricity reduction is going to make new transmission lines much less viable. On the other hand, to build transmission lines essentially refocuses attention on production, rather than reaching our energy efficiency potential.

All the while, if Arizona were to use its energy as efficiently as California, which has focused on EE programs for a long time, it would reduce its overall electricity production by 52%!

2259	Comment Response
2	The Bowie Power Station site is located approximately 15 miles from the TEP 345 kV transmission line corridor, where it was permitted to interconnect with the existing TEP transmission system at the Willow-345 kV substation. Air emissions from the Bowie Power Station would be regulated under State and EPA authority to meet air quality standards.
3	Comment noted

2259



Source: New Rules Project, Energy Self-Reliant States, October 2009, p. 25.
http://www.newrules.org/sites/newrules.org/files/ESRS.pdf

With all this energy reduction going on, why would it be beneficial to build SunZia? It is highly beneficial for out-of-state and overseas corporations. For typical Arizona residents, it is the opposite of beneficial.

4 Arizona stands to lose environmental quality, and the economic negatives that go along with these environmental quality reductions. The towers and lines themselves contribute to visual blight of the beautiful natural settings of Arizona, and New Mexico. The lines will contribute to transporting more electricity from natural gas – an absolute certainty, with the tie-in to the natural gas plant near Bowie.

Economically, this is not the way to go. Many studies have been done on the average cost of natural gas electricity, on coal electricity, on wind and on the cost of energy efficiency. Here are rough cost estimates for each of these delivered electricity options, or in the case of energy efficiency, saved electricity costs:

Costs Per Kilowatt-Hour of Newly Constructed Power Plant Electricity Delivered or Electricity Saved
Coal 13 cents per kilowatt-hour
Natural Gas 11 cents
Nuclear 24 cents
Solar PV 12-18 cents
Wind 11 cents
Energy Saved/Efficiency 3 cents (yes, as in one eighth the cost of nuclear energy or one fourth of coal)

We have enough base load electricity generators for our current use in Arizona, regionally and nationwide, on average, already. We will have even more than enough base load electricity generation with the reduction in load that will occur with nation-wide and state-wide energy efficiency portfolios.

The least-cost approach is energy efficiency. The next least-cost approach is EE mixed with renewables that are distributed generation, in other words, renewables that are generated and distributed locally.
The federal Bureau of Land Management is the agency that is controlling this environmental impact statement (EIS) process. The Draft EIS for SunZia has been done now. It is very biased. For example it makes the claim that this line is for renewable energy transmission, without any significant justification for this claim. The BLM is clearly in cahoots with the company promoting this highly profitable but destructive energy system.

5 I ask the BLM to clarify what the cost is of the "no-build" option for Arizona and New Mexico, compared to the cost of the SunZia project. I want the BLM to go back to the drawing board and get perspectives on what a no-build option would ultimately do to the total energy cost outlay from the citizens of Arizona and the region. The BLM should contract with reputable firms that do not have a hand in perpetuation of the 20th Century technologies of coal, nuclear and natural gas electricity production. They should consider companies like Synapse, the New Rules Project and others that are not enmeshed in the technologies of the past.

6 The BLM knows that this system has variable boundaries, as electricity marries electricity, once it gets on the western grid system. However, the BLM also knows that it can reasonably quantify what electricity will cost with a system that is unneeded versus what it will cost with a grid system that is not unnecessarily expanded. The BLM knows that if we put the energy dollars into energy efficiency and distributed generation renewables, the overall cost of energy to citizens in the West will be lower.

So, is Arizona headed to becoming a resource-depleted slave state, a third-world country-like state? Is this beautiful state going to be beholden to outside interests that profit from this potential deterioration? Or is Arizona going to start taking the reins in hand and steer away from this outside domination?

2259	Comment Response
4	As stated in the DEIS (p. 1-7), "Federal Energy Regulatory Commission (FERC, or Commission) Order 888 provides that owners of transmission facilities make such services available on the open market. Transmission facility services are to be provided on a nondiscriminatory, comparable basis to others seeking similar services, including ancillary services..." and reiterated on p 4-274 of the DEIS, "As previously discussed, FERC Order 888 compels transmission owners to provide open access to its facilities without discrimination, including discrimination as to type of generation requesting interconnection and transmission service." Although FERC rules do not allow for discriminatory preference among generation subscribers to a transmission line, "it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation" (see DEIS, p.1-8). Table 1-1, Renewable Energy and Transmission Capacity Needed to Meet RPS, and Table 1-2, Summary of Generation Interconnection Requests to Existing Transmission Owners within the Project Area, illustrate, respectively, a need for additional renewable generation sources and a need for transmission capacity. As stated in the DEIS (p. 1-9), "Pursuant to FERC Order 888, it is noted that the locations of individual proposed projects or transmission line interconnections cannot be identified to third parties by transmission owners." Although the specific location of the proposed projects cannot be identified, DEIS Table 1-2 provided an illustration of generation interconnection requests, including size and fuel, that were identified through transmission interconnection queues of load serving utilities within SunZia's path and represent projects located in counties which could reasonably interconnect with the existing system or SunZia. The purpose of this illustration was to provide an example of need for transmission service within the study area.
5	The proposed action does not require a cost outlay from the citizens of Arizona or the region. As provided in the Memorandum of Understanding between the SunZia Southwest Transmission Project's Applicant (SunZia Transmission, LLC) and the BLM, it is the Applicant's responsibility to reimburse the federal government for expenses to process the right-of-way application under a cost recovery agreement. Financing by the federal government is not a condition of the Proposed Action.
6	Please see response to Comment No. 5.

2259

Do we want to go down the tired path of fossil and nuclear energy, or do we want to ramp up our energy efficiency and blend it with renewables, cleaning our environment and reaping economic benefits of cheaper energy costs and more jobs?

A deadline of August 22nd has been set for this important phase of opposition to this project.

To let the BLM know what you think about this project, you can go online to download a comment form at: http://www.blm.gov/pgdata/etc/medialib/blm/nm/programs/more/lands_and_realty/sunzia/sunzia_docs.Par.1056.File.dat/SunZia-Comment_FINAL.pdf
This form has directions on where to send it, or you can e-mail your comments to: NMSunZiaProject@blm.com
You can also obtain a good perspective on this project at the website of the Cascabel Working Group, where you can obtain the Draft Environmental Impact Statement (in numerous pieces, several hundred pages of primary sections and addendums) at: http://cascabelworkinggroup.org/links.html

2259	Comment Response
	See following page(s)

2276

JON KYL
ARIZONA
730 HART SENATE OFFICE BUILDING
(202) 224-4521

COMMITTEE ON FINANCE
COMMITTEE ON THE JUDICIARY
REPUBLICAN WHIP

United States Senate
WASHINGTON, DC 20510-0304

STATE OFFICES:
2200 EAST CAMELBACK ROAD
SUITE 120
PHOENIX, AZ 85016
(602) 840-1891

6840 NORTH ORACLE ROAD
SUITE 150
TUCSON, AZ 85704
(520) 575-8633

August 21, 2012

Bureau of Land Management
New Mexico State Office
Attention: Adrian Garcia, SunZia Southwest Transmission Project
PO Box 27115
Santa Fe, New Mexico 87502

Dear Mr. Garcia:

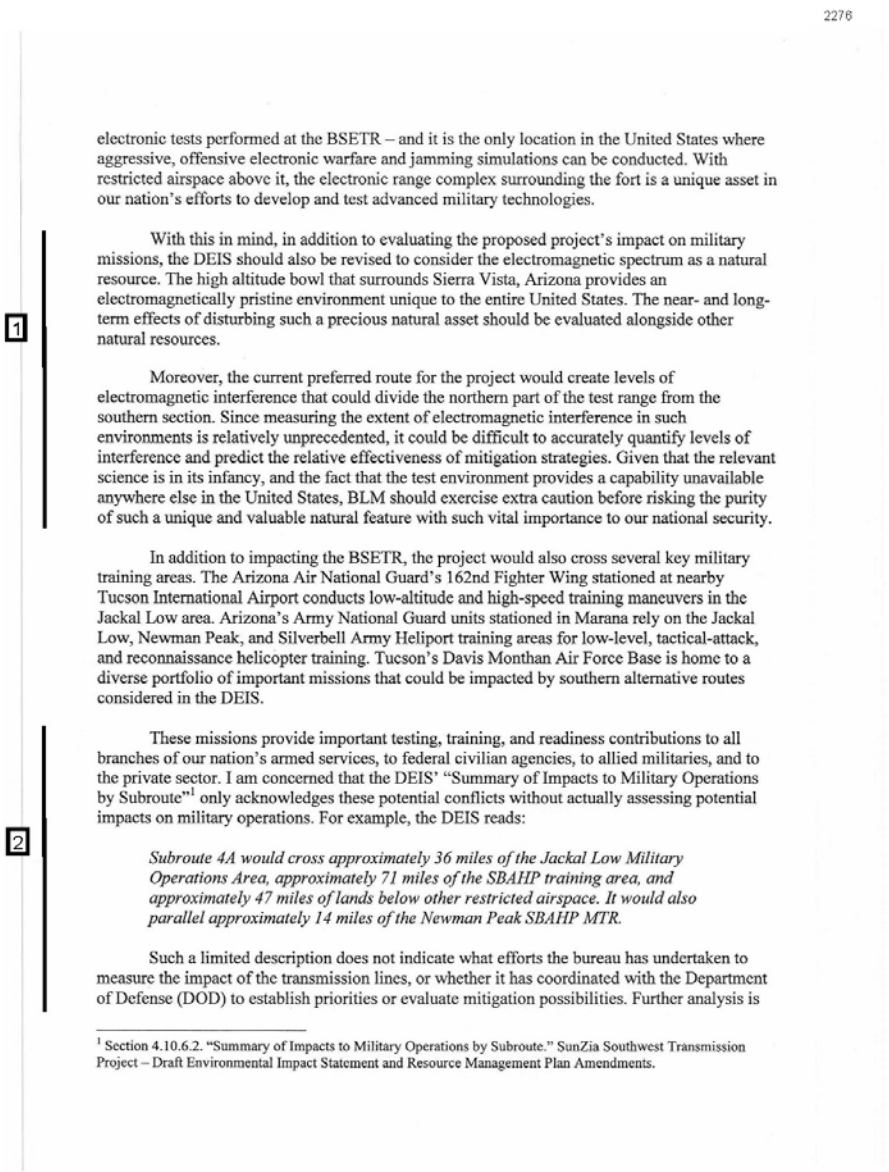
As you know, the Bureau of Land Management (BLM) recently developed a Draft Environmental Impact Statement (DEIS) for the SunZia Southwest Transmission Project, with the aim of evaluating and analyzing impacts associated with this proposed initiative – in particular, the environmental consequences of constructing transmission lines across a sensitive habitat that is home to a diverse array of threatened and endangered species. While I commend the BLM for its strong efforts on the environmental side of this issue, I do not believe there has been a similar level of analysis in regard to how the proposed project could impact military operations in Arizona.

Indeed, every route variant for the Arizona portion of the proposed project (Route Group 4) would cross land currently used by the military. All routes would cross some portion of the Newman Peak military training route (MTR). Northern routes 4A and 4B would cross over 35 miles of the Jackal Low Military Operations Area, while all other alternative routes would cross Fort Huachuca's Buffalo Soldier Electronic Test Range (BSETR) and the Silverbell Army Heliport (SBAHP) training area. Subroute 4C3, which would run through Tucson, could also impact operations at Davis Monthan Air Force base, in addition to crossing large portions of the BSETR and Newman Peak MTR. BLM's preferred alternative route, in particular, would cross 18 miles of the BSETR, 86 miles of the SBAHP training area, and 10 miles of the Newman Peak MTR.

These areas are home to important military training and testing missions, chief among them being Fort Huachuca's BSETR – the Army's developmental test location for C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance). On the BSETR, technical tests for C4ISR systems, signal intelligence systems, and Electronic Combat (EC)/Electronic Warfare (EW) equipment for the U.S. Army, other DOD and federal agencies, and private industry are planned, conducted, and analyzed. In addition to conducting developmental tests, the BSETR also supports the U.S. Army operational test community in a variety of other capacities.

The metal-rich mountains that surround the fort's electronic test range form a high-altitude, electromagnetic interference-free bowl that serves as an ideal location for the type of

2276	Comment Response
	See following page(s)



2276

electronic tests performed at the BSETR – and it is the only location in the United States where aggressive, offensive electronic warfare and jamming simulations can be conducted. With restricted airspace above it, the electronic range complex surrounding the fort is a unique asset in our nation's efforts to develop and test advanced military technologies.

With this in mind, in addition to evaluating the proposed project's impact on military missions, the DEIS should also be revised to consider the electromagnetic spectrum as a natural resource. The high altitude bowl that surrounds Sierra Vista, Arizona provides an electromagnetically pristine environment unique to the entire United States. The near- and long-term effects of disturbing such a precious natural asset should be evaluated alongside other natural resources.

1

Moreover, the current preferred route for the project would create levels of electromagnetic interference that could divide the northern part of the test range from the southern section. Since measuring the extent of electromagnetic interference in such environments is relatively unprecedented, it could be difficult to accurately quantify levels of interference and predict the relative effectiveness of mitigation strategies. Given that the relevant science is in its infancy, and the fact that the test environment provides a capability unavailable anywhere else in the United States, BLM should exercise extra caution before risking the purity of such a unique and valuable natural feature with such vital importance to our national security.

In addition to impacting the BSETR, the project would also cross several key military training areas. The Arizona Air National Guard's 162nd Fighter Wing stationed at nearby Tucson International Airport conducts low-altitude and high-speed training maneuvers in the Jackal Low area. Arizona's Army National Guard units stationed in Marana rely on the Jackal Low, Newman Peak, and Silverbell Army Heliport training areas for low-level, tactical-attack, and reconnaissance helicopter training. Tucson's Davis Monthan Air Force Base is home to a diverse portfolio of important missions that could be impacted by southern alternative routes considered in the DEIS.

These missions provide important testing, training, and readiness contributions to all branches of our nation's armed services, to federal civilian agencies, to allied militaries, and to the private sector. I am concerned that the DEIS' "Summary of Impacts to Military Operations by Subroute"[1] only acknowledges these potential conflicts without actually assessing potential impacts on military operations. For example, the DEIS reads:

2

> *Subroute 4A would cross approximately 36 miles of the Jackal Low Military Operations Area, approximately 71 miles of the SBAHP training area, and approximately 47 miles of lands below other restricted airspace. It would also parallel approximately 14 miles of the Newman Peak SBAHP MTR.*

Such a limited description does not indicate what efforts the bureau has undertaken to measure the impact of the transmission lines, or whether it has coordinated with the Department of Defense (DOD) to establish priorities or evaluate mitigation possibilities. Further analysis is

[1] Section 4.10.6.2. "Summary of Impacts to Military Operations by Subroute." SunZia Southwest Transmission Project – Draft Environmental Impact Statement and Resource Management Plan Amendments.

2276	Comment Response
1	Studies recently conducted for the U.S. Army – Ft. Huachuca indicate that there would be a 1-kilometer radius of potential effect from electromagnetic interference from the 500 kV transmission lines. As stated, although the degree of effect cannot be quantified, it was recommended in the study's conclusion that "military operations and testers (should) avoid the placement of receivers or transceivers within 1 km of 500kVa power transmission lines with frequency assignments up to 600MHz" (USAEPG, July 2012). The BLM-preferred alignment of the proposed SunZia transmission lines would be located within approximately 1,500 feet of, and parallel to, the two existing TEP 345 kV transmission lines that cross the portion of the BSETR north of I-10. Although the proposed Project may affect potential interference patterns within the 1-km corridor that contains the existing transmission lines, it doesn't appear that there would be any effect to the electromagnetically pristine environment.
2	BLM has coordinated with the DOD to identify the military operations areas through which the alternative routes would cross. Through coordination with the various branches, it was acknowledged that the military training operations could be modified in order to avoid potential conflicts with transmission lines. Continuing coordination with military personnel will take place to identify additional mitigation measures prior to construction.

2 necessary to ensure the route selected by BLM will not negatively impact critical military missions.

3 Similar to its treatment of immediate impacts on military missions in Arizona, the DEIS does not thoroughly evaluate the cumulative impact the proposed transmission project could have on military operations. The DEIS states that "it is the intent of the Applicant [SunZia] to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation,"[2] and it assumes that increased transmission capacity would foster the development of renewable energy adjacent to the potential route. Energy generation and its associated infrastructure – including inverters, substations, and gas peak plants – could jeopardize the utility of military operating areas and training routes, and could also generate significant electromagnetic interference. This should all be thoroughly considered in BLM's evaluation.

While it relies on the Department of Defense to provide information and feedback on these important issues, BLM has a final responsibility to fully evaluate the impact of the proposed project on military missions. Thus, I look forward to reviewing a final environmental impact statement that details significant cooperation with the Defense Department in the evaluation of the project's impacts, in the identification of strategies to mitigate such impacts, and – when mitigation cannot adequately preserve critical military missions – in the implementation of reforms to ensure that readiness and national security will not be compromised.

The portion of the DEIS that evaluates impacts to military operations in New Mexico reflects exactly such a process with respect to preserving the capabilities of the White Sands Missile Range (WSMR). Early on in the process, the Department of Defense and BLM worked closely to exclude routes that would jeopardize critical military missions and to discuss mitigation measures that could preserve military operations. The DEIS details this cooperative process and explicitly states that the BLM Preferred Alternative was selected because it would "minimize impacts to military operations within the restricted airspace of the WSMR."[3]

4 The DEIS does not indicate that a similar level of engagement has taken place with regard to installations in Arizona. This is especially concerning given that, more than a year ago, three senior Department of Defense officials formally requested "close consultation [with BLM] on mitigation to preserve other key military test and training capabilities in Arizona," following the resolution of route conflicts with operations at the WSMR.[4] Despite statements from both BLM and DOD that the sides continue to work together, the DEIS does not appear to reflect such cooperation.

---

[2] Section 4.17.3.3. "Energy Development Forecast Analysis." SunZia Southwest Transmission Project – Draft Environmental Impact Statement and Resource Management Plan Amendments.
[3] Section 2.5.4 "Selection of the BLM Preferred Alternative," SunZia Southwest Transmission Project – Draft Environmental Impact Statement and Resource Management Plan Amendments.
[4] Letter from Dorothy Robyn, Deputy Undersecretary of Defense for Installations and Environment, Samuel D. Kleinman, Deputy Undersecretary of Defense for Readiness, and David W. Duma, Principal Deputy Director for Operation Test and Evaluation to Bob Abbey, Director of BLM. May 25, 2011

2276	Comment Response
3	Reasonably foreseeable future actions that may be implemented were identified in the cumulative effects analysis in the DEIS (Section 4.17). Many of these are renewable energy development projects that would be located within the analysis area, primarily within the Qualified Resource Areas, as shown in the DEIS on Figures 4-2 and 4-3. With the exception of the expansion of the Macho Springs windfarm in Sierra County, New Mexico, no renewable energy developments have been proposed that would be adjacent to the preferred route or alternatives.
4	Close coordination has taken place between the BLM and representatives of the military installations in Arizona, including their review of the Administrative DEIS. Several meetings were held between the scoping period in 2009, and a meeting with Ft. Huachuca, BSETR, Air Force, and OSD representatives September 7, 2012. Please also see response to comment no. 1 regarding the studies conducted for the BSETR.

2276

I am concerned that the bureau has selected a preferred route without sufficient analysis of the impact such a route could have on both natural resources and military missions in Arizona. I understand that, since the DEIS' release in May, the BLM staff – its Arizona state staff, in particular – have worked with the Department of Defense to remedy this. Their attention to this issue and cooperation with the Department of Defense is very welcome and essential for the comprehensive review necessary for this project. However, in the end, the public record must reflect a thorough consideration of both the immediate and cumulative impacts in these areas before BLM moves to approve a final route for the transmission line. Otherwise, it will call into question any selection as being based on less than all the facts – and it could jeopardize our nation's critical military missions and Arizona's unique natural resources.

Sincerely,

JON KYL
United States Senator

2276	Comment Response
	See following page(s)

2307

Audubon NEW MEXICO

P.O. Box 9314
Santa Fe, NM 87504-9314
Tel: 505-983-4609
Fax: 505-983-2355

August 22, 2012

Delivered via electronic mail (nmsunziaproject@blm.gov) and U.S. Postal Service

U.S. Bureau of Land Management
New Mexico State Office
SunZia Southwest Transmission Project
P.O. Box 27115
Santa Fe, New Mexico 87502-0115

Re: Comments from Audubon New Mexico on the Proposed SunZia Southwest Transmission Project's Draft Environmental Impact Statement

Dear Mr. Garcia,

Please accept and fully consider these comments on the proposed SunZia Southwest transmission project ("SunZia") submitted jointly by the following Audubon entities - Audubon New Mexico, the state office of the National Audubon Society, and the New Mexico Audubon Council, representatives from Audubon chapters across New Mexico ("Audubon New Mexico"). Audubon New Mexico has been very engaged in the SunZia discussions, working towards positive solutions to meet our nation's growing energy demands. **Our comments highlight major areas of concern, including problematic stretches of the various routes in New Mexico and avian species that are likely to be most seriously impacted in New Mexico. Should the proponent be interested in pursuing the SunZia transmission line, we strongly encourage identification of alternative routes as all current routes have unacceptably high levels of environmental risk.** It is our hope that these help the U.S. Bureau of Land Management ("BLM") and project proponent choose generation sources and transmission sites that are the least environmentally damaging, and that SunZia becomes an example to the American people of a new way of business – where development of our nation's transmission infrastructure occurs in a manner that does not compromise the nation's wildlife resources and majestic landscapes.

Our comments contain the following sections:

I. Improvements Needed on the BLM's DEIS
II. Generation, Transmission, and Climate Issues
III. Proposed Routes Conflict with Important Rivers and Riparian Areas
IV. Other Areas of Concern in New Mexico
V. Species of Concern in New Mexico within the SunZia Project
VI. Collisions with the Proposed Transmission Line Highly Likely
VII. Crossing the Rio Grande
VIII. General Considerations for Renewable Energy and Transmission Line Development
IX. Mitigation Possibilities in New Mexico

1

1

2307	Comment Response
1	Comment noted

2307

I. Improvements Needed on the BLM's DEIS

2

Stakeholder Engagement

Audubon New Mexico is concerned about the format of the public review meetings that were held for the proposed SunZia project. Given the size and scope of this project, as well as it being identified as a priority project by the federal Rapid Response Team for Transmission, the BLM did a woefully inadequate job of meeting the spirit and intent of the National Environmental Policy Act ("NEPA") obligation of holding public meetings/hearings. According to the BLM's own NEPA Handbook (H-1790-01), "You may receive oral comments at public meetings and workshops" (6.9.2 Comments). The only approved speakers at these meetings were those representing the BLM. No public questioning of the speakers was permitted and no public discussion was allowed, raising questions about the transparency of the process. This narrow approach to public participation fails to provide attendees with an important opportunity to publically pose questions to the BLM and discuss essential issues, further degrading public faith in the federal process. Future meetings should incorporate an opportunity for public questioning of the speakers to improve overall understanding of the project's potential impacts.

3

Content of the DEIS

Audubon New Mexico's ability to provide substantive review was challenged by the vagueness of this Draft Environmental Impact Statement ("DEIS"). Therefore, our comments are based on a lack of sufficient information to evaluate the impacts of this project. For instance, the preferred route crosses the Rio Grande at a site not previously discussed or evaluated in prior scoping or comment periods, nor is it clear how the potential two 500 kV transmission lines will be sited in relation to each other. Only through informal discussions with BLM staffers and SunZia proponents were we able to learn that trees would be removed as a "safety concern" for wildfire and that the SunZia crossing of the Rio Grande may or may not have footings placed in the river or riparian areas.

4

In comparison to another federally-identified priority project, Gateway West, the analysis presented in this DEIS for the proposed SunZia transmission line is noticeably lacking. We request a more robust analysis of the impacts for specific species and to the various habitats, which includes up-front biological surveys. Furthermore, the *Cumulative Impacts section* fails to note if the actions proposed would have an adverse effect on migratory bird populations (including special status wildlife and fish species), habitats, ecological conditions, and/or significant bird conservation sites[1]. The SunZia DEIS also does not provide *specific information* on acreage of critical habitat impacted by species, further inhibiting our ability to understand impacts and provide more substantive comments.

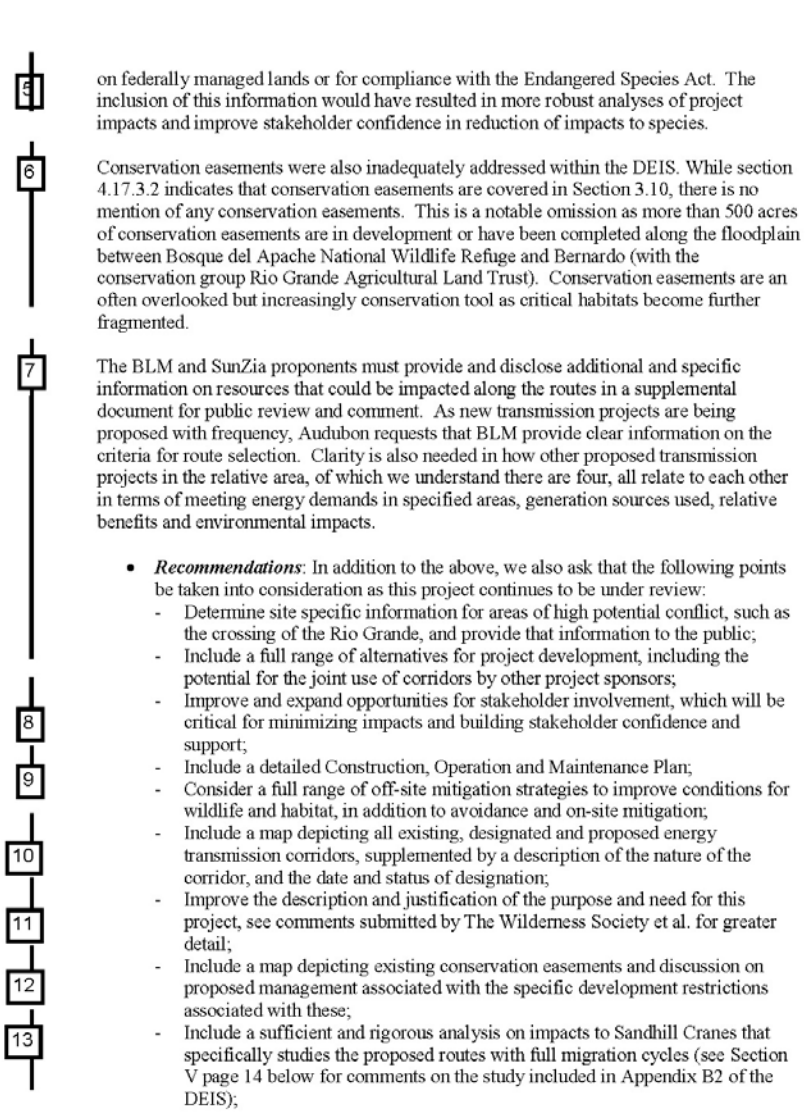
5

In the Gateway West DEIS, stakeholders were also presented with proponent-proposed *Environmental Protection Measures* and agency mitigation measures, which are lacking in the SunZia DEIS. Some measures, required to be implemented project-wide, are required

[1] In April 2010, the BLM signed and MOU with the USFWS regarding the management of public lands and the protection of migratory birds (BLM and USFWS 2010). BLM's obligations at the project level are to determine if the actions proposed would have an adverse effect on migratory bird populations, habitats, ecological conditions, and/or significant bird conservation sites. This should be reviewed for the project itself and then cumulatively with existing disturbances (caused by past and present actions) and potential future losses due to those same activities, both of which should be clearly stated.

2

2307	Comment Response
2	The DEIS was made available for public review and comment on May 25, 2012. The BLM held ten public meetings and scheduled a 90-day public comment period that ended on August 22, 2012. In total, the public scoping for the SunZia project has included a total of 22 public meetings and 255 days of public comment. A 45-day public comment period is generally the time provided for a DEIS. The BLM's planning regulations and guidance require a minimum 90-day public comment period for land use plan amendments. The SunZia project may involve several BLM land use plan amendments thus the 90-day comment period was provided. The SunZia DEIS comment period meets BLM requirements and affords interested parties opportunity and time to review the document and submit substantive comments. In addition, the BLM regulations implementing the National Environmental Policy Act regulations require that all substantive comments received before reaching a decision must be considered to the extent feasible. This means that substantive comments received after the 90-day comment period have also been considered before the Final EIS was issued.
3	Additional alternative routes, including the routes that cross the Rio Grande north of Socorro, NM (BLM Preferred Alternative), were identified during the 3rd scoping period between March 31 and June 10, 2010. Routes were later added or eliminated as a result of issues identified during scoping. The BLM Preferred Alternative would not require structure placement within the river channel, and Section 2.4.12 of the DEIS identifies mitigation measures that would minimize disturbance to riparian vegetation and woodlands.
4	The Gateway West transmission project conducted surveys for species known to be particularly sensitive to predation by raptors that may use transmission lines (e.g. Sage-grouse). No species at risk of raptor predation were known to be present in the SunZia Southwest Project area. Appendix B2 of the DEIS presents the results of surveys conducted by the University of New Mexico, used to estimate potential collision mortality at multiple proposed crossing locations of the Rio Grande. The MBTA does not provide a mechanism for any incidental take of migratory birds. However, all available and appropriate mitigation measures (structure design, bird diverters, and other measures that may be identified) would be implemented to minimize the collision risk. These measures will be detailed in an Avian Protection Plan, prepared in part to fulfill BLM's obligations under the April 2010 MOU. Appendix B2 presents estimates that no significant effects to any migratory bird species are anticipated at the population level. The discussion in Section 4.17.4.6 regarding cumulative effects presents available information on potential effects of transmission lines and other infrastructure with respect to migratory birds and other biological resources. The discussion notes that the proposed Project would contribute incrementally to the collision risk posed by all transmission lines. The increased collision risk would be minimized through mitigation measures, and through colocation with existing transmission lines where possible. The extent of effects to habitats and conservation areas resulting from uncertain future actions cannot be accurately predicted. The DEIS presents estimated acreages of designated and proposed critical habitat for the Southwestern Willow Flycatcher that may be disturbed. Critical habitat for the Gila Chub would also be crossed by a single local alternative in Cienega Creek, Arizona, or spanned in a nearby location on Subroute 4C3. Detailed engineering has not been developed for the local



2307

on federally managed lands or for compliance with the Endangered Species Act. The inclusion of this information would have resulted in more robust analyses of project impacts and improve stakeholder confidence in reduction of impacts to species.

Conservation easements were also inadequately addressed within the DEIS. While section 4.17.3.2 indicates that conservation easements are covered in Section 3.10, there is no mention of any conservation easements. This is a notable omission as more than 500 acres of conservation easements are in development or have been completed along the floodplain between Bosque del Apache National Wildlife Refuge and Bernardo (with the conservation group Rio Grande Agricultural Land Trust). Conservation easements are an often overlooked but increasingly conservation tool as critical habitats become further fragmented.

The BLM and SunZia proponents must provide and disclose additional and specific information on resources that could be impacted along the routes in a supplemental document for public review and comment. As new transmission projects are being proposed with frequency, Audubon requests that BLM provide clear information on the criteria for route selection. Clarity is also needed in how other proposed transmission projects in the relative area, of which we understand there are four, all relate to each other in terms of meeting energy demands in specified areas, generation sources used, relative benefits and environmental impacts.

- ***Recommendations***: In addition to the above, we also ask that the following points be taken into consideration as this project continues to be under review:
  - Determine site specific information for areas of high potential conflict, such as the crossing of the Rio Grande, and provide that information to the public;
  - Include a full range of alternatives for project development, including the potential for the joint use of corridors by other project sponsors;
  - Improve and expand opportunities for stakeholder involvement, which will be critical for minimizing impacts and building stakeholder confidence and support;
  - Include a detailed Construction, Operation and Maintenance Plan;
  - Consider a full range of off-site mitigation strategies to improve conditions for wildlife and habitat, in addition to avoidance and on-site mitigation;
  - Include a map depicting all existing, designated and proposed energy transmission corridors, supplemented by a description of the nature of the corridor, and the date and status of designation;
  - Improve the description and justification of the purpose and need for this project, see comments submitted by The Wilderness Society et al. for greater detail;
  - Include a map depicting existing conservation easements and discussion on proposed management associated with the specific development restrictions associated with these;
  - Include a sufficient and rigorous analysis on impacts to Sandhill Cranes that specifically studies the proposed routes with full migration cycles (see Section V page 14 below for comments on the study included in Appendix B2 of the DEIS);

3

2307	Comment Response
4	alternative that would be sited within designated critical habitat, and acres of disturbance could not be accurately estimated. No other designated or proposed critical habitat would be crossed by any alternative.
5	The Standard Mitigation measures listed in Table 2-10 of the DEIS include proponent proposed and agency mitigation measures, which are required to be implemented project-wide, and include measures to comply with the Endangered Species Act.
6	A discussion of conservation easements along the Rio Grande and elsewhere in the project study corridor has been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.
7	The cumulative impacts analysis in the DEIS (Section 4.17) accurately reflects the current status of the future transmission project proposals, as there is insufficient information available about the listed project proposals to understand their purpose and need statements, benefits, potential to meet energy demands or potential environmental impacts. Although the intent of each of these proposals is to transfer electricity generated by renewable and other sources between New Mexico, Arizona and other western markets, the specific generation sources have not been identified. Text has been modified in Section 4.17.4.13 of the FEIS) "The High Plains Express Transmission Project and the Centennial West Clean Line Project are multistate transmission projects that could provide added potential electrical transmission paths originating in central and eastern New Mexico, respectively. The proposed Southline Transmission Project (345 kV), located between southwestern New Mexico and southeastern Arizona, could transport additional electricity generated from sources in those areas; however, the purpose and need for the Southline project is different than for the SunZia Project. The Southline project's capacity would be limited to that which could be accommodated by a 345 kV transmission line and constructed within portions of Western Area Power Administration's existing rights-of-way."
8	Comment noted. Also see response to comment No. 2.
9	A preliminary Plan of Development (POD) when the DEIS was published by the BLM. The draft can be found under Documents on the BLM SunZia Project Website: http://www.blm.gov/nm/st/en/prog/more/lands_realty/sunzia_southwest_transmission.html The final Plan of Development (POD) will be completed prior to construction and will include detailed/final engineering for the Project. This document will specify all recommended mitigation measures along the ROW and will include identification of sensitive resource areas such as biological and cultural sites. In some cases, sensitive areas can be avoided by the Project by spanning or re-routing access roads to avoid direct disturbance.
10	Existing and transmission corridors are identified in the DEIS Map Volume, illustrated on M10-4. Reasonably foreseeable future transmission lines/corridors are identified in Section 4.17.3.2, Table 4-30 of the DEIS.
11	Comment noted
12	Please see response to Comment No. 6.
13	Please see responses to Comment No. 32 below

- Include more substantive analysis on direct impacts to individual species, such as acreage of critical habitat and miles of crossed by segment number;
- More thorough cumulative impacts analysis section, including review on cumulative effects to particular special status wildlife and fish species; and
- Include a discussion on habitat and species-specific Environmental Protection Measures ("EPMs") and mitigation measures that would be applied to limit the potential impact of the proposed project[2].

Therefore, we request the publication of a Supplemental EIS and/or supplemental documents for public review (which contains much of the additional analyses described above) and comment prior to publication of a Final EIS.

II. Generation, Transmission, and Climate Issues

In the face of growing concern about rapid global changes in climatic conditions, much of it due at least in part to human activities (Intergovernmental Panel on Climate Change 2007), there has been speculation about what impacts these changes may have on various ecological communities (McCarty 2001, Huntley et al. 2006, Jetz et al. 2007, Intergovernmental Panel on Climate Change 2007, BirdLife International 2008). Nearly 60 percent of the 305 species found in North America in winter are on the move, shifting their ranges northward by an average of 35 miles. National Audubon Society scientists analyzed 40 years of citizen-science Christmas Bird Count[3] data, providing new and powerful evidence that global warming is having a serious impact on natural systems. Northward movement was detected among species of every type, including more than 70 percent of highly adaptable forest and feeder birds. These data illustrate, in part, the impacts of climate change on birds.

Energy and climate issues are linked with the health of our communities and environment. Our nation's continued demand for fossil fuels, coupled with the unprecedented threats brought about by climate change, threaten to dramatically alter ecosystems and available water supplies. As we move forward in improving our aged transmission infrastructure, our nation must consider the source of the energy being delivered to communities, the siting of the transmission line, and the overall impacts to the wildlife resources in these areas.

The United States should make major new investments in clean energy technologies and infrastructure that will allow us to reduce global warming pollution while also creating the clean energy economy of the future. We strongly believe our society should maximize

[2] See Gateway West DEIS for list of suggested mitigation measures. These mitigation measures include proponent-proposed EPMs (2.7.5 and Table 2.7-1) that were developed with the BLM and cooperating agencies. The more thorough effects analysis for Gateway West assumed that these EPMs would be followed on all routes, as site-specific circumstances dictate. Notably, the BLM or cooperating agencies identified additional mitigation measure when they determined that an EPM was insufficient to protect the affected resources or was inconsistent with agency requirements (aka, mitigation measures, see section 3.11.3).

[3] To find out more about Audubon's Christmas Bird Count, please go to http://birds.audubon.org/christmas-bird-count

2307	Comment Response
14	Areas of impact to critical habitat have been quantified, and added to the FEIS, where new information is available or where additional Project description has been developed. Also see response to Comment No. 4 regarding critical habitat.
15	The DEIS, (Section 4.17) discusses the types of impacts that may occur cumulatively to species and habitats in the analysis area, but does not speculate on the intensity or amounts of those impacts that cannot be determined. Additional detail has been added to the FEIS where new information became available after release of the DEIS, e.g. regarding the Southline Transmission project which initiated the scoping process and has developed additional alternatives. Additional information relative to a discussion of cumulative effects on biological resources is not available at this time.
16	Please see response to Comment No. 5.
17	A supplemental EIS is not needed. The responses to these comments are included above.

energy efficiency, vastly expand our use of renewable energy, and develop the needed infrastructure to deliver clean energy to America — all in an environmentally responsible manner - that will help reduce our global warming emissions while minimizing the impacts on birds and habitat. In order to achieve this clean energy vision, Audubon recommends the development of properly-sited transmission to serve new renewable energy and a "Smart Grid" to transmit that energy more efficiently.

18

We strongly prefer that any new lines facilitate only renewable energy generation but understand the Federal Energy Regulatory Commission ("FERC") open access constraints. Given those constraints, however, we expect for BLM to scrutinize the probability that SunZia will facilitate renewable energy generation and to explicitly address the possibility of facilitating new generation from coal plants.

The stakeholders and active participants in the evolving national transmission discussion have expanded dramatically – conservationists and other interests are deeply engaged in the dialogue and policy process. Conservationists agree that it is possible to build responsibly-sited projects faster, better, and with less expense, all while minimizing harm to the environment (Dart et al. 2011). Improving our transmission infrastructure provides a unique opportunity to be forward-thinking in our approach, by selection of greener technologies and siting to preserve priceless landscapes and iconic wildlife species.

Transmission and generation are inextricably linked. As an AC line, power from additional, unspecified projects can be added to a given transmission line. Therefore, analyses should include information on source of power, with a strong emphasis on renewable energy sources. To provide increased confidence that the line will principally carry renewable energy, the proponent and BLM should provide continuous, transparent updates on potential subscribers to the line and explicit statements of generation intent for the line within any revisions of this EIS, Integrated Resource Plans ("IRPs"), and state rate cases while acknowledging open access rules. The FEIS needs to also include discussion on how impacts can be avoided and mitigated in the event multiple transmission projects are ultimately approved and constructed within a given area.

Audubon New Mexico supports renewable energy development provided that it is sited, designed, constructed, and operated to responsibly minimize harmful impacts on the environment. In particular, we believe that siting of renewable power and transmission line development in New Mexico should contain appropriate stipulations regarding wildlife and avian resources inventory, mitigation, and monitoring, including the cumulative effects of expanded development in both space and time.

- ***Recommendations***:
  - SunZia line could help meet our nation's clean energy and climate goals by providing access to wind and solar projects in New Mexico and Arizona. However, it must be properly sited to avoid impacts to sensitive avian species and wildlife habitats.
  - Priority for capacity on SunZia should be given to renewable energy projects as an important tool to addressing climate change concerns.

19

2307	Comment Response
18	As stated in the DEIS (p. 1-7), "Federal Energy Regulatory Commission (FERC, or Commission) Order 888 provides that owners of transmission facilities make such services available on the open market. Transmission facility services are to be provided on a nondiscriminatory, comparable basis to others seeking similar services, including ancillary services..." and reiterated on page 4-274 of the DEIS, "As previously discussed, FERC Order 888 compels transmission owners to provide open access to its facilities without discrimination, including discrimination as to type of generation requesting interconnection and transmission service." Although FERC rules do not allow for discriminatory preference among generation subscribers to a transmission line, "it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation" (see DEIS, p.1-8). Table 1-1, Renewable Energy and Transmission Capacity Needed to Meet RPS, and Table 1-2, Summary of Generation Interconnection Requests to Existing Transmission Owners within the Project Area, illustrate, respectively, a need for additional renewable generation sources and a need for transmission capacity.
19	Please see response to Comment No.18.

2307

20

- Analyses should include information on source of power. To provide increased confidence that the line will principally carry renewable energy, the proponent and BLM should provide continuous, transparent updates on potential subscribers to the line and explicit statements of generation intent for the line within any revisions of this EIS, IRPs, and state rate cases while acknowledging open access rules.
- The FEIS needs to also include discussion on how impacts can be avoided and mitigated in the event multiple transmission projects are ultimately approved and constructed within a given area.

III. Proposed Routes Conflict with Important Rivers and Riparian Areas

Background on Ecological Value of Rivers and Riparian Areas

Riverine and riparian ecosystems are the most productive, biologically diverse, and threatened habitats in the American Southwest (Johnson and Jones 1977, Johnson et al. 1985, Knopf et al.1988, Ohmart et al. 1988, Johnson 1991, Minckley and Brown 1994). Riparian habitats support ecological processes and diverse assemblages of distinctive species that are not found in the surrounding uplands (Stevens et al. 1977, Minckley and Brown 1994).

Despite their great ecological importance, land management activities, such as flow regulation and other anthropogenic activities have substantially compromised the ecological integrity of stream, wetland, and riparian ecosystems throughout North America (Minckley and Brown 1994, Dale et al. 2000). Estimates of riparian habitat loss range from 40% to 90% in the arid southwestern states (Dahl 1990), and riparian habitats are considered to be one of the region's most endangered ecosystems (Minckley and Brown 1994, Noss et al. 1995). The highest known densities of breeding birds in North America occur in southwestern cottonwood forests (also known locally as "bosque") and 73% of all southwestern breeding birds occur in riparian habitats during the breeding season. These same riparian habitats are also critical migration stopovers for other species that breed farther north.

The Rio Grande corridor, specifically, is critical for numerous avian species. During spring and fall migration, the shorelines, mudflats, and sandbars of the reservoir and river in this area provide important feeding grounds for migrating shorebirds and waterbirds that need to refuel during their journey along the river corridor. The waters of the Rio Grande in this area also support valuable riparian forests and marshes which host breeding populations of many neotropical migrants such as warblers, tanagers, and flycatchers, and these same riparian habitats are critical migration stopovers for other species that breed farther north.

The Middle Rio Grande valley has experienced increasing human impacts that are compromising the long-term capability of these areas to provide adequate forage and roosting habitats to sustain cranes at current levels (Association of Fish and Wildlife Agencies 2009). Because of existing and increasing threats to Sandhill Crane and other bird populations, any new impacts within the Middle Rio Grande valley should be examined carefully.

6

2307	Comment Response
20	Potential impacts to multiple transmission lines are described in Section 4.17 Cumulative Effects of the DEIS. Mitigation would be attributed to individual projects that may be constructed in the future, but it is not certain which projects would be constructed within a given area. Also see response to Comment No. 18.

21

Important Bird Areas Reflect Critical Avian Habitat

We commend the BLM for inclusion of Important Bird Areas in the DEIS, which further supports our argument for avoiding these areas. Important Bird Areas ("IBAs") are part of an international program to identify priority areas where threatened, restricted-range, biome-restricted and congregatory birds occur. In the United States, this program is managed by the National Audubon Society. A site is recognized as an IBA only if it meets certain criteria, which are internationally agreed, standardized, quantitative and scientifically defensible. Scientists identify locations that provide essential habitat to one or more species of birds during some portion of the year (nesting areas, crucial migration stop-over sites, or wintering grounds). The selection of IBAs has been a particularly effective way of identifying conservation priorities. The identification of such critical habitats is an important consideration in generation and transmission development, as these areas should be avoided due to their ecological value.

To that end, the influential Western Electricity Coordinating Council's ("WECC") Environmental Data Task Force ("EDTF") ultimately included Important Bird Areas as a preferred data set when evaluating potential transmission alternatives. According to the EDTF, "high voltage transmission lines have a relatively small direct footprint on the ground; however, large interstate transmission lines can also indirectly and cumulatively impact wildlife, cultural and historical features and water resources" (WECC 2011). Thus, "the anticipated benefit of incorporating environmental and cultural information upfront in the transmission planning process is to reduce the potential for conflict with these resources during subsequent siting, permitting, and constructions" (WECC 2011).

New Mexico currently has 62 IBAs which include sites like Bosque del Apache National Wildlife Refuge, Ladd S. Gordon Waterfowl Complex, Rio Grande Nature Center, the Gila Bird Area along the Gila River, Valles Caldera National Preserve, and Otero Mesa. The first two IBAs referenced above, of which there is more detail below, are *global*[4] IBAs that threaten to be negatively impacted by this proposed transmission line.

The Middle Rio Grande Valley IBAs

22

Audubon New Mexico has concerns about the impacts of the SunZia transmission line on the Rio Grande, particularly with the Middle Rio Grande valley and the specific routes crossing the Rio Grande north of the Bosque del Apache National Wildlife Refuge ("NWR"). Both the Rio Grande crossing Subroute 1A and the San Antonio crossing Subroute 1B are located within critical wintering habitat for Sandhill Cranes and other waterfowl. Because of unacceptable impacts to migrating Sandhill Cranes and other important birds and wildlife, BLM should not select any routes crossing the Rio Grande near the Bosque del Apache NWR or in the Middle Rio Grande valley, unless

[4] The global IBA designation is based on the site meeting criteria related to containing species of global conservation concern, assemblage of restricted-range or biome-restricted species, ≥1% biogeographic (N. Am.) population of a waterbird simultaneously or ≥5% over a season, ≥1% global population of a seabird or terrestrial species simultaneously or ≥5% over a season, and/or aerial bottleneck where ≥ 5% North American population of a migratory waterbird or ≥ 5% global population of a migratory seabird or terrestrial species passes during a season.

2307	Comment Response
21	Comment noted
22	Comment noted. As discussed in the DEIS (Section 4.16), an underground alternative would result in high impacts to the Rio Grande floodplain, through the siting of associated facilities and required vegetation management within the right-of-way.

22

environmental analysis shows that running the line underground in this area would sufficiently limit impacts.

The network of floodplain wetlands along the Rio Grande corridor form an inherent route for more than 200,000 Mallards, Northern Pintail, American Wigeon and 16 other Intermountain West Joint Venture ("IWJV") priority duck species migrating to and from breeding and wintering areas in the interior highlands and Gulf of Mexico (Appendix A). The Middle Rio Grande valley is considered one of three important wintering areas for the Central Flyway population of Northern Pintail. Up to 60,000 Snow and Ross' geese, and the majority of the Rocky Mountain population of greater Sandhill Cranes winter and migrate through Middle Rio Grande habitats. Currently, 80% of Rocky Mountain cranes winter in two New Mexico counties encompassing just 34 river miles, 5,000 acres of managed wetlands, and a limited number of acres of suitable agriculture (Association of Fish and Wildlife Agencies 2009). In moist-soil units, the production of protein and carbohydrate rich vegetation is maximized to meet the high energetic demands of wintering waterfowl and waterbirds. In areas of high sub-surface water, salt grass meadows support high biomasses of protein-rich invertebrates. Along with managed historic floodplain wetlands and privately-owned agricultural fields these areas support hundreds of thousands of waterfowl, cranes, raptors, and waterbirds (White-faced Ibis, Green Heron, Black-crowned Night Heron and Snowy Egrets). Fresh and saline wetlands support dozens of shorebird species (Black-necked Stilts, American Avocets, Long-billed Curlews, Baird's Sandpipers, and Wilson's Phalaropes). One of the largest remaining gallery cottonwood forests is in the Middle Rio Grande valley and supports a great diversity of breeding landbird species, including species of concern such as the Lewis's Woodpecker and Lazuli Bunting. Mixed-aged stands of woody vegetation in the area support the federally endangered Southwestern Willow Flycatcher and other species of national and regional concern including Bell's Vireo, Yellow-billed Cuckoo, Common Black-Hawk, and Lucy's Warbler.

Bosque del Apache IBA, one of the most spectacular national wildlife refuges in North America, was recently recognized as a global IBA in 2012. The 57,191 acre refuge straddles the Rio Grande valley in Socorro County, New Mexico. Within the refuge borders lie three wilderness areas totaling almost 31,000 acres, most of which is desert scrub/mesquite and grassland habitat. Over 340 species of birds live here, often numbering in the tens of thousands. During winter, huge flocks of Snow Geese and Sandhill Cranes inhabit the IBA, as well as dabbler ducks (35,000+), Black-throated and Sage Sparrows, and raptors including Bald Eagles and Ferruginous Hawks. During summer Vermillion Flycatcher and Lucy's Warbler (both at the northern edge of their range), Lesser Nighthawk, Yellow-billed Cuckoo and Southwestern Willow Flycatcher use the area. Migration brings shorebirds as well as passerines. During the period 1995-2002 in winter, there was an average of about 45,000 waterbirds. Through the annual Festival of the Cranes that takes place here, the Central New Mexico Audubon Society, the New Mexico Audubon Council, and Audubon New Mexico join the Friends of Bosque del Apache to continue to share the wonders of birding with the public and support the Refuge's efforts to continue providing sanctuary to these magnificent birds and other wildlife.

Routes north of the Bosque del Apache NWR will compromise the purpose of the refuge and even the Ladd S. Gordon Waterfowl Complex managed by the New Mexico

Department of Game & Fish ("NMDGF"). The proposed transmission line could also significantly harm the financial investments in habitat restoration and forage for birds made by the government agencies, both at the federal and state level, as well as by several non-governmental organizations. Bosque del Apache NWR was established using the authority of the Migratory Bird Conservation Act (16 U.S.C. 712d) of 1936, to provide refuge and breeding grounds for migratory birds and other wildlife as well as incidental fish and wildlife-oriented recreational development, the protection of natural resources, and the conservation of endangered species or threatened species. Additional lands were added by Executive Order 82189 in November 1939.

The ***Ladd S. Gordon Waterfowl Complex***, another global IBA, is composed of the Belen, Casa Colorada, Bernardo, and La Joya Waterfowl Areas. This IBA was originally designated in 2000 and then elevated to a Global IBA in 2012 because it contains critical resting and feeding area for thousands of ducks, geese, and cranes during migration and winter. This complex is a cooperative project between the NMDGF and the U.S. Fish and Wildlife Service ("USFWS") to feed and harbor migrating waterfowl along the Rio Grande corridor. Approximately one-half of the wintering waterfowl in the Middle Rio Grande valley are fed by this IBA[5]. The Belen Waterfowl Area is four miles south of Belen on New Mexico 109. This 230-acre farm grows corn and alfalfa for migrating waterfowl. The Casa Colorado Waterfowl Area comprised of 420 acres of cultivated crops is six miles south of Belen on New Mexico 304. The Bernardo Waterfowl Area is 17 miles south of Belen near Bernardo and straddles U.S. Highway 60. This property consists of more than 1,700 acres with 450 acres in cultivation and is open to the public on most days, with recent improvements for bird viewing and photography platforms. An auto tour loop and two short hiking trails also give visitors views of birds in fields and ponds. The La Joya Waterfowl Area is 22 miles south of Belen, just east of I-25 and consists of 3,500 acres containing 600 acres of man-made ponds to provide winter feed and resting areas.

Located on the southern end of the Central Flyway and along the key migration corridor of the Rocky Mountain population of Sandhill Cranes, the Middle Rio Grande valley, more specifically the Socorro reach of the valley, has been integral in the rebuilding and protection of this waterbird population. During the early 1900's the Rocky Mountain population of Sandhill Cranes numbers plummeted due to habitat alteration, land fragmentation, and human population growth (Taylor 1999). By the 1940's, the population was estimated to be fewer than 400 birds. Efforts to protect habitat, restore wetlands, and enhance existing natural and agricultural habitats in combination with sound population management practices helped the species recover to between 18,000 and 20,000 birds annually (Taylor 1999). Today along with the Rocky Mountain population cranes, the Middle Rio Grande valley plays host to hundreds of thousands of migrating and wintering waterbirds and countless breeding and migratory neotropical migrants and raptors including the federally-listed endangered Southwestern Willow Flycatcher and the candidate species Yellow-billed Cuckoo.

In 2010, a subgroup of *The Migratory Shore and Upland Game Bird Support Task Force* focused on establishing the top priority information needs for migratory populations of

[5] For more info, NMDGF website at http://www.wildlife.state.nm.us/conservation/wildlife_management_areas/index.htm

Sandhill Cranes (Assoc. of Fish and Wildlife Agencies 2009). One of the outcomes of this effort was the finding that the most limiting landscape in the annual cycle of Sandhill Cranes, specifically the Rocky Mountain population, is the Middle Rio Grande valley and further alterations to the valley could be population compromising. Many geographic constrictions occurs in the Middle Rio Grande valley which limit the energetic potential of the valley, concentrates the Sandhill Crane population for an extended period, and places them in proximity to large concentrations of other migratory waterbirds. Due the valley's size there are already limited habitat resources for foraging and roosting which are becoming increasingly limited due to habitat conversion and degradation resulting from water loss and urbanization.

Conservation Investments in Middle Rio Grande Valley

Audubon New Mexico is concerned about the impacts of SunZia to the significant financial investments made to date to conserve the biological, cultural, and historic resources of the Middle Rio Grande valley by landowners, non-governmental organizations, and state and federal agencies and governments. Because of its importance as a continental flyway, the USFWS and partners have worked to conserve and restore habitat for decades along the Middle Rio Grande Valley. The SunZia project will adversely impact the federal and partner investments in this Middle Rio Grande region including the 2001 and 2005 North American Wetlands Conservation Act ("NAWCA") projects valued at over $6.5 million ($2 million from the federal NAWCA grants and $4.5 million in matching funds from partners). Successful implementation of two previous NAWCA grants in partnership with Ducks Unlimited and the USFWS funded wetland and riparian restoration work at Bosque del Apache NWR, Sevilleta NWR, the Ladd S. Gordon Waterfowl Management Area, and several other sites along the Middle Rio Grande valley including several conservation easements.

Audubon New Mexico supported these projects and the recent NAWCA grant which may award $1 million in federal funds for five conservation easements, one fee acquisition, and riparian restoration in the Middle Rio Grande and the inter-agency Private Lands Program Conservation Initiative. The 2012 NAWCA project for the Middle Rio Grande valley contributes 1,857 acres of protected, restored, and enhanced palustrine and forested wetlands, irrigated agriculture, and wetland-associated uplands to the diminished base of waterbird habitat – all which could be impacted by the SunZia project. To be successful, this Middle Rio Grande landscape-level initiative requires many partners willing to work together towards a shared vision of a living river. This project, currently underway, brings together 14 new partners – 7 of which are 10% matching partners – comprised of a diverse collaboration including: 8 private landowners, 5 non-profit organizations, 2 charitable foundations, Santo Domingo Pueblo, USFWS, NMDGF, New Mexico Environment Department, and the Socorro Soil and Water Conservation District.

23

Conservation easements currently held by and in negotiations with the Rio Grande Agricultural Land Trust ("RGALT") will be impacted by the SunZia line with the crossing between Bosque del Apache and Sevilleta National Wildlife Refuges. RGALT is securing 3 perpetual conservation easements on 602 acres of private lands along more than a mile of the Rio Grande just north of Bosque del Apache NWR. These tracts are in the active floodplain and still have some overbank flooding, providing important wetland habitat and support ecological functioning.

2307	Comment Response
23	Please see response to Comment No. 6.

- ***Recommendations***:
  - BLM should not select any of the proposed routes which cross the Rio Grande near the Bosque del Apache National Wildlife Refuge or in the Middle Rio Grande valley, unless environmental analysis shows that running the line underground in this area would sufficiently limit impacts. 24
  - Routes north of the Bosque del Apache NWR will compromise the purpose of the refuge and even the Ladd S. Gordon Waterfowl Complex managed by the New Mexico Department of Game & Fish.
  - Because of its importance as a continental flyway, the USFWS and partners have worked to conserve and restore habitat for decades along the Middle Rio Grande Valley. The proposed transmission line could significantly harm the financial investments in habitat restoration and forage for birds made to date by governmental agencies (state and federal) and non-governmental organizations. For example, the 2001 and 2005 NAWCA projects valued at over $6.5 million ($2 million from the federal NAWCA grants and $4.5 million in matching funds from partners). 25
  - In addition to the species noted in the DEIS, this project could also severely impact Sandhill Cranes. In 2010, a subgroup of The *Migratory Shore and Upland Game Bird Support Task Force* focused on establishing the top priority information needs for migratory populations of Sandhill Cranes. One of the outcomes of this effort was the finding that the most limiting landscape in the annual cycle of Sandhill Cranes, specifically the Rocky Mountain population, is the Middle Rio Grande valley and further alterations to the valley could compromise populations. 26
  - SunZia routes considered in earlier scoping stages included crossings of the Rio Grande further south in New Mexico and would considerably reduce the riparian and avian impacts. BLM should consider the routes that cross the Rio Grande south of Elephant Butte Reservoir in New Mexico. If these routes in the Middle Rio Grande valley are chosen, BLM must require all mitigation measures to minimize impacts to any crossing of the Rio Grande in this area. 27

IV. Other Areas of Concern in New Mexico

The Nutt Grasslands (aka Luna County Grasslands)

The Nutt Grasslands in northeastern Luna County, east of Midpoint Substation, are relatively unfragmented Chihuahuan semi-desert grasslands and identified as a key eco-region in NMDGF's Comprehensive Wildlife Conservation Strategy. Proposed routes on the southern end of Group 1 will impact and fragment this grassland area home to many wildlife species. These southern New Mexico grasslands support Grasshopper and Baird's Sparrows and other sparrows, Sprague's Pipits, meadowlarks, lark buntings, and more. The DEIS notes that the area contains important grassland habitats for wintering grassland birds, as well as Sandhill Cranes and geese (3-110). Additionally, we have learned that the Nature Conservancy and the New Mexico Land Conservancy both hold conservation easements in this area and the route may cross these protected lands. 28

2307	Comment Response
24	See response to comment 22. Mitigation measures to minimize collision risk at the Rio Grande crossing will be based on the best available information, and are anticipated to include modifications in structure type and design, conductor and groundwire configuration, and measures to increase visibility such as bird diverters. The DEIS (Appendix B2, Section 4.6) acknowledges that bird collisions would occur, but through the siting of the BLM preferred alternative near the north end of a narrow block of farmland, and with the application of mitigation measures, the purpose of Bosque del Apache NWR and the Ladd S. Gordon Waterfowl Complex is not anticipated to be compromised.
25	Please see response to Comment No. 6.
26	Potential impacts to Sandhill Cranes are described in Section 4.6.4.4 of the DEIS.
27	Section 2.3.3.1 of the DEIS describes alternative transmission line routes that were considered and eliminated. The alternative routes located south of the Bosque or north of the Sevilleta National Wildlife Refuge were eliminated because they were not feasible. The southern routes would cross either wilderness study areas or military lands that were excluded for new rights-of-way. The northern routes were excluded because they would cross wilderness study areas or BLM exclusion areas.
28	Please see response to Comment No. 6.

2307

Lordsburg Playa
Lordsburg Playa is a vast ephemeral saline lake that provides habitat to considerable numbers of waterfowl including Sandhill Cranes. In partnership with New Mexico's Tourism Department, NMDGF, and other partners, Audubon New Mexico designated this site as part of our Southwestern New Mexico Birding Trail (site 11) for bird-watchers to visit the shallow playa for shorebirds and waterfowl sightings. The soils in this area are also home to several rare plants. Subroute 3A1 would cross this area and negatively impact sensitive plants and invertebrates. While the DEIS references the Lordsburg Playa as a winter stopover site for migratory shorebirds (3-117), it fails to adequately address the impacts of a transmission line through this sensitive habitat.

29
30
31

- ***Recommendations:***
  - If this transmission line is approved, subsections A361, 430, and 431 should all be avoided. Instead, the more westerly BLM preferred route would cause less disturbance. Given the importance of this general area, site disturbance should be minimized and grasslands should be restored with native grasses.
  - The transmission corridor should be minimal width of 400 feet to decrease the impact to the landscape and wildlife. If required, the BLM's RMP amendment should adopted the utility corridor of 400 feet and not the 2,500 feet to allow for future projects (3-229). The two 500 kV transmission lines are more than sufficient for any electricity generated in the area now and long into the future.
  - Impacts to Lordsburg Playa must be adequately addressed.

V. <u>Species of Concern in New Mexico within the SunZia Project</u>

Southwestern Willow Flycatcher
The southwestern subspecies of the Willow Flycatcher, known as Southwestern Willow Flycatcher, has been listed as federally endangered since 1995, currently state listed as endangered, and critical habitat has been designated since 2005. The species has had more than a century of decline, mostly attributed to loss/conversion of riparian habitat. The Rio Grande corridor in New Mexico is part of this critical habitat where it is vulnerable to the loss, fragmentation, and modification of the riparian areas. The Middle Rio Grande reach has 357 documented territories of Southwestern Willow Flycatcher (2010 data) with 33 of those sites at Bosque del Apache NWR.

Yellow-billed Cuckoo
Similar to the needs and habitat preferences of Southwestern Willow Flycatcher, Yellow-billed Cuckoo is a candidate species for listing under the Endangered Species Act. A riparian species experiencing significant declines in the last few decades, Yellow-billed Cuckoo breeds along New Mexico's major river valleys, including the Rio Grande. Once common along the streams and rivers of the western U.S., Yellow-billed Cuckoo appear to breed only in long contiguous stretches of riparian habitat (Holmes et al. 2008). In 2001, as the result of habitat loss, the USFWS found that the western Yellow-billed Cuckoo (populations west of the crest of the Rocky Mountains) represents a distinct population segment and warrants protection under the Endangered Species Act. It was determined

12

2307	Comment Response
29	Comment noted
30	The BLM's preferred plan amendment would be to adopt the 400-foot-wide corridor alternative.
31	The BLM's preferred plan amendment would be to adopt the 400-foot-wide corridor alternative. Text was revised in Section 2.6 of the FEIS as follows "The BLM's preferred *plan amendment* alternative is the 400-foot-wide corridor that may be included as an amendment to RMPs in New Mexico and Arizona for conformance with VRM and right-of-way management objectives…"

that it should be listed as "threatened," but this action was precluded by other higher priority listing actions, and is now under USFWS review (Johnson 2009).

Sandhill Cranes

The State of New Mexico has developed a Long-range Management Plan for Sandhill Cranes and this species is a New Mexico Species of Greatest Conservation Need as identified in the State Wildlife Action Plan (NMDGF 2003 and 2006). However, the primary authority for management of the species lies with the USFWS.

There is one species of crane found in New Mexico, the Sandhill Crane (*Grus canadensis*), with three identified subspecies found in the state: Lessers (*G.c. canadensis*), Canadians (*G.c. rowani*) and Greaters (*G.c. tabida*) (NMDGF 2003). Migration and wintering areas are of concern in New Mexico (Appendix B and Appendix C). These areas are described in NMDGF's Long-Range Plan, but, briefly, include the entire Rio Grande valley from the Colorado line to northern Dona Ana County, the Pecos River watershed from Roswell to Carlsbad, and from Las Vegas National Wildlife Refuge in western San Miguel County southwest to the Middle Rio Grande valley. Additional areas include Grulla National Wildlife Refuge, Roosevelt County and surrounding areas southwest to Roswell, the Las Uvas Valley south to Columbus in Luna County, and from Bosque del Apache National Wildlife Refuge southwest to Wilcox Playa, Arizona. Fewer numbers migrate through and winter at Maxwell National Wildlife Refuge, Colfax County and the lower Gila River Valley, Grant County. The Middle Rio Grande valley, and specifically the Socorro valley, is a narrow corridor that is used by hundreds of thousands of migrating and wintering waterbirds.

The Socorro valley has been identified as the most critical landscape in the annual cycle of the Rocky Mountain population of Sandhill Cranes (approximately 20,000 annually in the population) due to the density of wintering birds in one location, the limited availability of foods (natural and wintering), and the small size of this wintering area (Taylor 1999). Research across all Sandhill Crane populations indicates the single most important factor regulating Sandhill Crane populations is habitat availability (Tacha et al. 1992). Understanding the importance of the valley in the context of population viability is essential when evaluating potential anthropogenic impacts.

Audubon New Mexico has reviewed the study initiated by SunZia and commissioned to EPG called the "Analysis of Potential Avian Collisions with Transmission Lines at Four Locations on the Rio Grande in New Mexico" ("EPG Study") to look at crane movements up and down the Middle Rio Grande valley because of concerns expressed about the crossing north of Bosque del Apache NWR. In this study, the conclusion states that the SunZia project "would have no significant effects on the population status of any species living in or migrating through the Rio Grande Valley." However, Audubon New Mexico believes that the collision estimates and population effects on Sandhill Cranes are difficult to predict. The EPG Study looked at four sites, and none of these are the routes chosen in this DEIS. Additionally, there appear to be gaps in the study design and Audubon New Mexico and other migratory bird managers have little confidence that this study is going to provide us much in the way of understanding how cranes use the valley seasonally or daily. For instance, the survey periods are incomplete and do not contain the entire migration cycle. The survey in year one, December 2009 – March 2010, excludes much of

32

2307	Comment Response
32	The referenced study, including all mortality estimates based on the results, was designed and conducted independently by researchers at the University of New Mexico. EPG prepared the report for inclusion in the DEIS as Appendix B2. Although the BLM preferred alternative crossing had not been identified at the time of the study, the results now represent the best available information for the study area, or for similar transmission lines in similar settings. An Avian Protection Plan will be developed, to include selection and placement of all mitigation measures to minimize the risk of bird collision and to identify monitoring requirements and adaptive management. This plan will be supported by APLIC's 2012 guidelines on reducing collision risk.

32 the fall migration. The study in year two, August 2010 – December 2010, misses the late winter and spring migrations. The population numbers are not an accurate reflection of true population numbers. Furthermore, EPG's mortality estimates are based on assumptions about the effectiveness of the new "FireFly" technology from one study (Murphy et al. 2009) in which the authors conclude that a more rigorous study with experimental design is needed to draw any inferences about the effectiveness of this technology at decreasing crane mortality.

Bell's Vireo

In New Mexico, Bell's Vireo is broadly distributed in appropriate habitat across the central and southern part of the state. They breed in the Rio Grande valley from the southern border up to San Antonio, New Mexico. Listed by the state of New Mexico as threatened, Bell's Vireo populations are declining throughout its range, primarily due to declining riparian habitat.

Lucy's Warbler

A desert riparian species, Lucy's Warbler occurs in several areas of New Mexico including the Rio Grande valley around Socorro. Breeding in the riparian areas, Lucy's Warbler is a National Audubon Society WatchList species and is at risk due to extensive habitat loss and a small breeding range. Maintaining and enhancing suitable riparian habitat in the Rio Grande corridor is essential to this species.

Lewis's Woodpecker

33 Lewis's Woodpecker has experienced broad population declines since the 1960's and is a National Audubon Society WatchList species, with breeding areas in New Mexico. Although most documented nest sites are north of the SunZia routes, potential nesting sites within the Rio Grande corridor and the SunZia project area may exist. Often described as an opportunistic and nomadic species, it winters in New Mexico, including in southern New Mexico.

Raptors in New Mexico

34 New Mexico contains a diverse array of habitats, many of which are known to support raptors during one or more seasons. Raptors include all diurnal and nocturnal birds of prey. The central mountains in New Mexico lie within one of three major migration corridors in western North America. Twice annually, thousands of migrating raptors pass through the state, utilizing the updrafts that occur on the windward side of mountain ridges (Smith and Neal 2008). Raptors breed, migrate and winter in the state. Most North American raptor species may be present in New Mexico during the migration season and in a wide variety of habitats. These include riparian corridors, perennial and ephemeral wetlands, grasslands, juniper savanna, woodlands, deciduous, pine/oak, and coniferous forests. All north-south oriented mountain ridges and river corridors (including the Rio Grande, Pecos, and Canadian) serve as important migratory flyways.
Raptors of particular conservation interest are Aplomado Falcon, federally listed as endangered, and the following species of concern with one or more state or federal agencies such as Peregrine Falcon, Common Black-Hawk, Gray Hawk, Prairie Falcon, and Ferruginous Hawk. Additionally, Golden Eagles are monitored throughout the United States because the species is vulnerable due to its relatively small population size and various sources of mortality.

2307	Comment Response
33	The Avian Protection Plan will address impacts to all migratory birds, including measures to minimize disturbance to nesting birds
34	The Avian Protection Plan will address nesting, resident, or migratory raptors, including stipulations for avoidance, management of nests on Project structures, avoidance of nearby nests, and ensure compliance with the Bald and Golden Eagle Protection Act.

34 Because raptors feed at the top of food pyramids, inhabit most ecosystems, occupy large home ranges, and are sensitive to environmental contamination and other human disturbances, they serve as important biological indicators of ecosystem health (Bildstein 2001). They are documented utilizing considerable swaths of habitat along portions of the SunZia proposed transmission route.

Golden and Bald Eagles

Based on the USFWS' analysis of populations across the nation, there is no safe allowable take level for Golden Eagles; however, take is likely unavoidable with transmission project of this magnitude and in this location. Use by Golden Eagles is not surprising as the application area contains native shrubland and grassland communities, as well as natural landscape features, that provide foraging and nesting opportunities sought by Golden Eagles. Given the growing concern for these majestic birds, especially related to mortalities associated with wind farms and expanding transmission infrastructure, any development decisions that will impact Golden Eagles must be placed within a regional population context much larger than the area immediately surrounding any proposed transmission project, which this DEIS fails to do.

35

The status of the Golden Eagle is so dire that the USFWS currently authorizes take permits only under the philosophy that *"no net loss"* may be attributable to such take. Raptor migration counts and Christmas Bird Counts have indicated a *decline in Golden Eagle populations* in western North America since the 1980s, especially in recent decades (Farmer et al. 2007). Similarly, a recent update of this data continues to suggest juvenile eagles are declining in some regions (Neilson et al. 2010). In February 2011, the USFWS issued the Draft Eagle Conservation Plan Guidance ("Guidance") which is designed to comply with the regulatory requirements of the Bald and Golden Eagle Protection Act ("BGEPA"). The Guidance is intended to assist project developers and USFWS personnel in actions to avoid, minimize, restore and compensate adverse effects to Bald and Golden Eagles, describing a process by which project developers can collect and analyze information that could lead to programmatic permits authorizing additional take of eagles. Again, we are left with a situation where the proposed project is proceeding ahead of guidance and data necessary to ensure that significant wildlife values are not compromised. *We recommend that BLM fully ensures compliance with BGEPA and ensures stable or increasing Golden Eagle breeding populations* – an action that has not been adequately addressed in the DEIS.

Without project modification, the proposed *transmission line appears inconsistent with the USFWS' goals of minimizing eagle population impacts* and avoidance over compensatory mitigation. Improvements can be achieved by using historical and current survey data, as well as the Key Raptor Areas such as the BLM's Macho Wildlife Habitat Area, to identify areas to avoid development. One such area are migration routes, which received very minimal attention in the DEIS. Adequate buffers should be in place and monitored to evaluate effectiveness. Compensatory mitigation for retrofitting of lethal power poles in the region should be considered for the first five years of operation. In addition, the Eagle Conservation Plan should include Advanced Conservation Practices to reduce risks to Golden Eagles and other raptors from the project.

2307	Comment Response
35	See response to comment 34. The Avian Protection Plan will also serve as an Eagle Protection Plan. Development of this plan will be a cooperative effort between the BLM, USFWS, and applicable state agencies.

35 BLM and SunZia should consult with USFWS regarding what surveys should be conducted to predict potential eagle mortality, and if warranted, consider applying for an eagle incidental take permit. Bald Eagles are currently listed as state threatened in New Mexico. Although fatalities most often occur at smaller (≤ 69 kV) distribution lines, electrocution and collision are known causes of mortality for the Golden Eagle. The design and layout of SunZia's towers, transmission lines and guy wires should minimize risk to eagles.

Common Black-Hawk

36 In New Mexico, the Common Black-Hawk population is highly vulnerable to alterations or further losses of riparian forest habitat and particularly mature, streamside gallery forests. This species is listed as threatened in the state of New Mexico. Less than one percent of this species population occurs in the United States.

Ferruginous Hawk

A Species of Conservation Concern, Ferruginous Hawk has the highest vulnerability scores from Partners in Flight due to its small population size and threats during the breeding season. It is considered highly sensitive to disturbance and to loss or alteration of native grassland habitat. Ferruginous Hawk breed across the northern two-thirds of New Mexico and are found statewide in the winter. Breeding may occur in the Rio Grande valley in the area of the SunZia project and in isolated areas in the southwestern portion of the state.

Peregrine Falcon

Peregrine Falcon is a state priority due to its small New Mexico population and high degree of threat to breeding in the state. A national bird of conservation concern for the USFWS, Peregrine Falcon is state listed as threatened by NMDGF.

Northern Aplomado Falcon

Listed as federally endangered in southern and western Texas and state-listed as Endangered in New Mexico, this species exists as an experimental population in New Mexico with primary breeding habitat in the Chihuahuan Desert Grassland of southern New Mexico. Falcons are threatened by habitat destruction and disturbance at nest sites, and may experience direct mortality due to collisions with construction cranes, trucks, or wires and powerlines. Noise and human activity may displace the birds, and removal of nesting sites impacts their reproductive activities. Both of the SunZia routes in southern New Mexico would cross suitable habitat for this species. Transmission, planning, and construction of the proposed line should be consistent with the species reintroduction plan and its objectives to avoid negative impacts to the falcons. In addition, the Final EIS must adequately analyze potential cumulative effects of energy development that would be enabled by the construction of SunZia. For example, recent wind development (Macho Springs) in the Nutt Grasslands area, the same area where SunZia is proposed to be routed, has led to the decision to not reintroduce these endangered birds into highly suitable habitat in the Nutt Grasslands due to potential conflicts with wind turbines. We anticipate SunZia will enable future wind, solar and natural gas development to occur that could not only directly impact suitable habitat and the likelihood of successful natural dispersal and establishment of new populations, but could also preclude or dissuade reintroduction

37

2307	Comment Response
36	See response to comments 33 and 34.
37	The DEIS (Section 3.6.6.1) discusses potential impacts to the Aplomado Falcon, including the cumulative effects of wind and solar development (Section 4.17.1.6). The DEIS specifically notes the Macho Springs Wind Project. However, wind energy development in the vicinity of the proposed SunZia East Substation would generally be outside the likely range of the species. With regards to loss of habitat, no evidence indicates that the Aplomado Falcon is negatively affected by transmission lines. Smaller distribution lines have been used as nest substrates in Texas, and disturbance of existing raptor and raven nests in Aplomado Falcon habitat would be avoided to the extent practicable. Habitat unsuitability, resulting from widespread changes from historical conditions in vegetation communities, is expected to be the primary limiting factor to Aplomado Falcons within the Project area. Potential impacts to the Aplomado Falcon are addressed in detail through Section 7 consultation with the USFWS, currently underway.

2307

efforts in suitable habitats. Therefore, the impact to Aplomado Falcon recovery and recovery efforts must be analyzed.

The DEIS states, "Large areas of available but unoccupied habitat, coupled with the naturally low densities of Aplomado Falcons, would preclude significant negative effects of Project construction related to habitat loss." While it is true there are large areas of unoccupied and suitable habitat for the falcon in the project study area, we do not see any basis for the assumption that naturally low densities of this species would preclude significant negative effects from occurring. Effects to this species will depend largely upon the final route that is selected and that route's proximity to occupied habitat and nest locations. Modifying or creating hazards in suitable and unoccupied habitat could preclude birds' dispersing there or being reintroduced there, which could have significant negative impacts on their ability to be recovered.

37

- ***Recommendations***:
  - SunZia and BLM should consult with the USFWS regarding conservation measures for each of these bird species. One of the more prominent species is the Southwestern willow flycatcher. For this species, engineering of structures to span over flycatcher habitat is the preferred avoidance method, and vegetation preservation and/or restoration actions should be implemented where SunZia interacts with flycatcher habitat.

38

  - For some species, recovery plans may provide guidance for avoidance, minimization, and mitigation measures (and implemented in consultation with USFWS).
  - Avoidance and mitigation measures may be warranted for any instances in which the transmission corridor crosses a floodplain or other riparian habitat area such as the Middle Rio Grande.

39

  - Clarification on impacts to raptor nesting concentration areas and migration routes.
  - Avoiding impacts will require a great deal of geospatial data on the locations of the protected and sensitive lands and species. The quality and availability of these data will vary across the extent of the proposed line. The absence of data, such as on private lands, does not necessarily indicate the absence of sensitive resources. On-the-ground surveys, consistent with guidelines provided by the USFWS or state wildlife agencies, must be performed and results made public for consideration of project impacts.

40

  - Specific information about the sensitivity to disturbance of the endangered, threatened, candidate wildlife species will be required to establish buffer zones around the most sensitive habitat to avoid direct and indirect impacts.

41

  - An Avian Protection Plan ("APP"), developed before construction begins in consultation with USFWS and state wildlife agencies, should be designed for the entire line to reduce the mortality and injury risks to birds from the new power line. The APP should follow guidelines available through the Avian Power Line Interaction Committee ("APLIC"), including also the most current technological and operational innovations to reduce avian risks. The APP should describe how the transmission tower design will reduce electrocution

17

2307	Comment Response
38	Potential impacts to the Southwestern Willow Flycatcher on the BLM preferred alternative are addressed in detail through Section 7 consultation, currently underway with the USFWS. Recovery plans have been reviewed for all applicable species, and relevant information has been used to develop the FEIS and Biological Assessment.
39	Development of mitigation measures related to design, micrositing, locations where seasonal avoidance would be implemented, and other site-specific or time-specific constraints, will be conducted concurrent with the final POD. However, the standard and selective mitigation measures presented in the DEIS provide the framework to be used for site-specific application. Detailed application of these measures would also be conducted concurrent with the consideration of other resources.
40	The best available information, including consultation with agency biologists, will be used to determine appropriate buffers and seasonal constraints for all parts of the Project area.
41	As noted in previous comments, an Avian Protection Plan will be developed, and will incorporate information to be provided in the 2012 update of APLIC's guidance to minimize collision risk.

2307

risks, prevent nesting, and prevent collision with electrical wires and tower support wires.

42 - Reclamation of disturbed habitat with native species will require a plan informed by the best available science as well as a rigorous inspection program to achieve goals and objectives in the short-, medium-, and long-term.

43 - An impacts analysis, especially for Sandhill Cranes, must be conducted in coordination with agency biologist to provide an understanding of impacts to specific avian populations and habitat. This information will then inform the development of a compensatory mitigation plan for both temporary and permanent impacts.

VI. Collisions with the Proposed Transmission Line Highly Likely

Extensive alteration to the Rio Grande and associated floodplain has reduced the available riparian habitat and constricted it to a narrow corridor, particularly in the Middle Rio Grande valley. This constriction increases the density of birds moving along the corridor increasing the likelihood of collisions. Additionally, the Lordsburg Playa area provides habitat to vast numbers of waterfowl, including cranes, after rain events and the overhead line would present avian challenges in that area.

Sandhill Cranes are threatened from collisions with powerlines. Up to 10% of all mortality is due to collisions with powerlines (NMDGF 2003). An additional 30% of all deaths are from unknown causes, but a portion could conceivably include collisions. During winter cranes need both roosting sites, flat, shallow open wetlands as well as nearby feeding areas which may include wet meadows or other wetlands and cropfields. Cranes in New Mexico have been documenting traveling over 20 miles from roost site to feeding areas (NMDGF 2003).

Numerous studies have found that collisions with transmission are a significant cause of mortality for Sandhill Cranes and collisions with power lines have been well-documented (Ward et al. 1987, Windingstad 1988, Brown and Drewien 1995, Wright et al. 2009). In a 2005 USDA Forest Service Technical Report, Manville said that collisions with power transmission and distribution lines are estimated to kill as many as 175 million birds annually, and an additional tens to hundreds of thousands more birds are electrocuted. The difficulty with quantifying the impact of these utilities is that due to great expanse of area they cover they are poorly monitored for both strikes and electrocutions (Manville 2005). Other sources of mortality include hunting (53%) and other shooting incidents (5%) (NMDGF 2003). Cranes generally fly higher than turbines or powerlines. Incidents may occur during landing or takeoff and during inclement weather conditions such as snow storms or heavy fog.

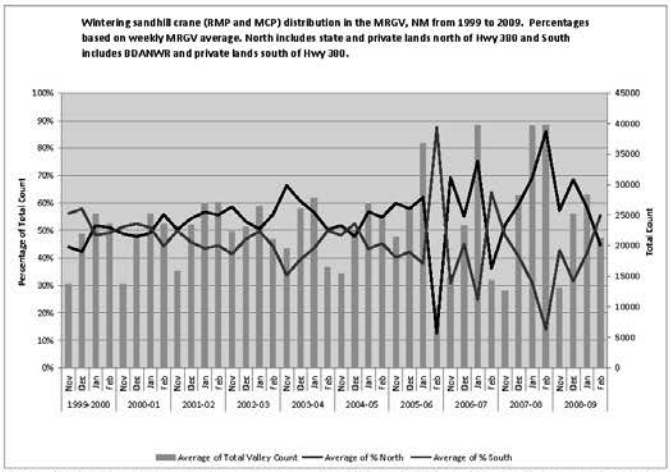
Daily movements north out of Bosque del Apache NWR and up to Ladd S. Gordon Waterfowl Management Area or the surrounding agricultural lands expose birds to obstacles in their flight path. Managed agricultural crops are provided at Bosque del Apache NWR and Ladd Gordon Waterfowl Area approximately 40 miles north of the Refuge. Food and hunting management at each of these areas is designed to encourage daily movement between the areas to disperse the population of wintering cranes and snow

18

2307	Comment Response
42	The final POD will include a detailed vegetation management plan.
43	Coordination with BLM and cooperating agency biologists was carried out through the impact analysis process.

2307

geese and to reduce disease outbreak and spread (as shown on the chart reproduced below, which was provided courtesy of refuge biologists at the Bosque del Apache NWR). Audubon's greatest concern is the likelihood of collisions for cranes and other migratory birds that forage up and down the Middle Rio Grande valley and have frequent takeoff and landings. Extreme weather conditions that create poor visibility, which are common along the river during the winter, further increase the likelihood of bird and transmission line collisions.



Winter distribution of Sandhill Cranes throughout the Middle Rio Grande Valley in response to location of food and roost sites.

In the San Luis Valley of Colorado, collisions with transmission lines were one of the contributing mortality factors to the experimental Whooping Cranes population. On certain sections of transmission lines in the San Luis Valley where wetlands and agricultural foods are bisected by transmission lines, Sandhill Crane collision events have been as high as 75 birds a night (information provided by Vradenburg, personal communication, November 2009). Historic bird and transmission line collisions at Bosque del Apache NWR and further north in Colorado stimulated the Refuge to work with the Socorro Electric Cooperative to bury all transmission lines on the Refuge.

44

BLM's preferred route (Subroute 1B) and alternative Subroute 1A for the SunZia line cross the Rio Grande in critical habitat for Sandhill Cranes and both routes can be expected to have consideration impact on these bird populations. Because most areas occupied by cranes are known, **the best alternative for the siting of the SunZia line would be to avoid locating this transmission line and associated structures in known crane concentration areas or to bury powerlines** (unless environmental analyses indicate greater environmental impacts). Banded cranes have been known to live for 37 years.

19

2307	Comment Response
44	The DEIS (Section 4.16) discusses the potential for greater environmental impacts of the underground alternative of the Project at the Rio Grande relative to overhead conductors and groundwires.

2307

45 Cranes return to the same areas year after year, so adverse impacts will have long-term effects. To the extent possible, avoid locating transmission lines near major migration or wintering areas. If this transmission line is located in a wintering area for cranes, avoid placing this infrastructure in areas between potential roosting and foraging areas. Additionally, avoid use of guy wires for powerline tower support.

VII. Crossing the Rio Grande

46 Any crossing of the Rio Grande will entail significant impacts to migrating bird populations and other wildlife. The recent 2009 study on cranes and transmission by Wright et al. recommends immediate mitigation for transmission line placement near major roosting sites. Although Audubon New Mexico feels believes that the potential damage to the Middle Rio Grande valley crane population cannot be fully mitigated, we recommend the following actions to reduce impacts to cranes and partially offset the expected impact of the SunZia line:

1) Set transmission lines and associated infrastructure back from the edges of wetlands and croplands to allow for takeoff and landing by these large birds so that they do not have to pass through lines or facilities.
2) Mark transmission lines with bird flight diverters or other markers so that they can be more easily seen and avoided by cranes. Powerlines marked with markers such as the yellow spiral vibration dampeners or yellow fiberglass swinging plates have been shown to reduce crane mortality by 54% to 63% in different studies (Brown and Drewien 1995). Although a limited number studies have been conducted on the use of markers or "bird diverters" to reduce collisions, BLM should confer with the USFWS to determine and implement best practices for reducing transmission line and guy wire collisions with Sandhill Cranes and all bird species.
3) Bury powerlines and transmission lines in areas where there is high crane use for roosting and foraging and likely potential for collision with takeoff and landings, unless environmental analysis shows that running the line underground in this area would increase environmental impacts. Underground burial of the transmission line is the only effective way to avoid significant impacts to Sandhill Cranes. Although the cost of undergrounding this line was evaluated by SunZia in their Underground Technology and Cost Analysis, this evaluation does not account for total project expense such as the use of diverters and ongoing maintenance or the cost of mitigation.
4) Minimize roads, fences, and other infrastructure.

47 • ***Recommendations***: In addition to the above, we continue to encourage that the route travel along the east side of the White Sands Missile Range and cross the Rio Grande River near Las Cruces, where impacts would be much lower. All of the alternatives presented in the DEIS would cross the Rio Grande in the Middle Rio Grande region between the Bosque del Apache and Sevilleta National Wildlife Refuges, an area that is particularly important for wildlife.

20

2307	Comment Response
45	All available mitigation measures are under consideration to minimize bird collision risk at the Rio Grande crossing. Final selection and placement of mitigation measures will be identified in an Avian Protection Plan. Generally speaking, mitigation measures identified at this time will include the following, although other measures remain under consideration: • Structures within the Rio Grande floodplain will be self-supporting lattice or steel tubular, and will not use guywires. • Bird diverters or similar post-construction measures to increase visibility will be applied within the Rio Grande floodplain. • Overhead groundwires will use a one-inch conductor (OPGW) within the Rio Grande floodplain rather than the typical one-half-inch conductor (OHGW) used elsewhere.
46	1. The BLM preferred alternative is located at a relatively narrow portion of the Rio Grande floodplain, near the northern end of a block of contiguous farmland. Although Sandhill Cranes may use farmland in this area, likely dependent on crops planted in a given year, a relatively smaller foraging area is available when compared to much of the floodplain. 2. See response above. 3. See response above. 4. Existing access would be available within the Rio Grande floodplain in most locations, although spur roads may be required to reach some structure sites. No new fencing is anticipated, although this would be at the discretion of individual landowners.
47	Please see response to Comment No. 27.

2307

VIII. General Considerations for Renewable Energy and Transmission Line Development

Pre-decisional information should be gathered concerning the wildlife resources of any area being considered for renewable power and transmission line development. It is important to recognize that in many areas, detailed information is lacking, and that absence of information is not equivalent to indication of the absence of use by wildlife. Surveys adequate to determine the presence of migrants, including nocturnal migrants, must demonstrate that there is no significant use of a proposed site by migrating birds or bats.

48

As a minimum, survey objectives should include the following:

- Identification of avian and bat species using the area, particularly during migration periods—fall and spring—when large numbers of birds may be moving through the area *(visual and acoustic observations and aerial surveys);*
- Quantitative and qualitative descriptions of the temporal and spatial use of the study area by the identified species, to include data on the altitude at which birds fly over the study area during migration, particularly at night. (*Fine-scale marine radar combined with acoustic monitoring during both fall and spring migrations.);*
- Identification of any high-avian-use areas *(resting or congregating areas, National Wildlife Refuges)* within the overall study area which may pose a higher risk to avian species from development.

Monitoring methodologies should also:

- Be site specific and statistically valid;
- Be peer reviewed by unbiased biometricians and ornithologists who have no financial relationship to the project;
- Include a formal-risk-assessment component that examines the probabilities of and the consequences to wildlife populations of worst-case outcomes;
- Identify the ranges and movement patterns of bird species included on the Partners in Flight Species of Continental Importance as well as state and federal threatened and endangered species and other bird species of management concern.

IX. Mitigation Possibilities in New Mexico

49

Habitat Equivalency Analysis

Replacement habitat acreage and ratios will vary with habitat type and quality, geography and topography, legal protections, direct and indirect impacts, and permanency of the impact. A Habitat Equivalency Analysis ("HEA") was used to objectively quantify habitat replacement mitigation goals for habitat impacts associated with the Ruby Pipeline from Wyoming to Oregon[6] and is currently being proposed for the Gateway West transmission

[6] http://www.blm.gov/pgdata/etc/medialib/blm/nv/nepa/ruby_pipeline_project/rod/attachment_i.Par.92482.File.dat/Final_USFWS_15%20June_2010_%20Ruby%20MB%20Conservation%20Plan%20Support%20Document.pdf. An HEA requires that habitat is replaced with like habitat so that there is no net loss in ecosystem services and the replacement or compensatory habitats should be of equal or better quality to those disturbed by a given project

21

2307	Comment Response
48	Within the Project area, areas of high avian use are understood relatively well. The Rio Grande was identified as such an area, and focused surveys were conducted at multiple locations along the Rio Grande Valley, including estimates of typical flight heights during diurnal movements. Cooperating agencies have provided information on known roosting areas. Bats are not known to be at risk of collision with transmission lines. Also see response to comment 4.
49	A HEA is one potential pathway to assess the effect of the Project and to determine the extent of mitigation required. See response to comment 50.

49 project, this latter project specifically includes a Habitat Services Metric ("HSM") model for determining impacts on sage-grouse habitat services. We are in favor of applying a robust and defensible quantitative assessment for this and future projects. We strongly encourage BLM to monitor the use of this tool as Gateway West proceeds, as a possible tool for this proposed transmission line. An HEA or similar transparent and quantitative analytical tool which has been approved by the USFWS should be required to establish habitat mitigation goals for the SunZia project.

Mitigation

The development of projects like the SunZia, can provide energy solutions, but should not unnecessarily damage the public's natural resources. The BLM's Habitat Mitigation Policy, codified at 43 C.F.R. § 1508.20, lists habitat mitigation actions in descending order of preference: avoidance, minimization, and compensation.

50 Replacement habitats are preferably located in the same geographic area as the impact, which in this case is primarily the Middle Rio Grande corridor. Rather than approach replacing impacted habitat acres with a patchwork of small areas of newly protected land, it can be preferable to assemble and purchase much larger areas and closer to already protected lands to maximize their long term and population benefits. Impacted federal lands providing habitat for endangered, threatened, candidate and sensitive species should be mitigated by the acquisition and/or permanent protection of currently non-federal lands that provide better than equivalent benefits to wildlife. These newly protected lands should be protected in perpetuity and will require endowments to ensure the perpetual protective management of mitigation lands.

If an action alternative is chosen, the project's environmental impacts should be avoided to the greatest extent possible by siting in areas with low resource values and minimized and mitigated to the best degree possible, using best management practices, the best available technology, and innovative strategies for both on and off-site mitigation. The FEIS should develop a mitigation component that provides for no net loss in habitat for wildlife species.

Manipulation of crops within the Middle Rio Grande corridor may diminish collision threats to foraging cranes. The BLM should mandate that SunZia works with the USFWS to study specific foraging preferences and movement of the Middle Rio Grande population of Sandhill Cranes to identify if crops and foraging areas can be changed to reduce collision mortality. BLM could direct SunZia mitigation funds to conservation easements and habitat restoration programs identified by the USFWS as most critical for ensuring a healthy population of cranes and other waterfowl.

As noted previously, this DEIS inadequately addresses mitigation. In the Gateway West DEIS, stakeholders were also presented with proponent-proposed *Environmental Protection Measures* and agency mitigation measures, which are lacking in the SunZia DEIS. Impacts need to be minimized in areas which cannot be avoided and compensation is often used to offset unavoidable impacts. The DEIS lacked any descriptions of specific mitigation measures that may be required for the alternative routes. Some measures, required to be implemented project-wide, are required on federally managed lands or for compliance with the Endangered Species Act. The inclusion of this information would have resulted in more robust analyses of project impacts and improve stakeholder

2307	Comment Response
50	Multiple opportunities for compensatory mitigation are available for the Project, and would be developed in detail following Section 7 consultation and during right-of-way acquisition. The BLM and Arizona Game and Fish Department have policies regarding compensation for losses of Desert Tortoise habitat and loss of habitat values for all wildlife. Critical habitat for two listed species (Rio Grande Silvery Minnow and Southwestern Willow Flycatcher) may be affected at the Rio Grande crossing, and offset mitigation may be appropriate. Modification of land use within the right-of-way in the Rio Grande floodplain (e.g. crop modifications or planting screening trees) would be subject to the approval of private landowners, but remains under consideration. Other mechanisms to support mitigation planning, including HEAs, may be used if found to be necessary by the applicable agency.

50

confidence in reduction of impacts to species. We recommend review of the mitigation measures proposed in the Gateway West DEIS as a minimum, along with close consultation with the USFWS and cooperating state agencies.

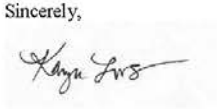
Additionally, the BLM has demonstrated the authority to negotiate for mitigation funds for substantial offsets, in addition to avoidance, minimization, and restoration measures. For instance, on the Ruby Pipeline through Nevada, Utah, and Wyoming, BLM was able to secure $11.6 million in funding to offset the impacts of that gas line for conservation measures to benefit wildlife. Mitigation funding should be under consideration for any unavoidable impacts of the SunZia project.

X. Conclusion

In closing, the American West's natural resources are too precious and unique to sacrifice – in the long term to climate change or in the short term to energy development. As our nation struggles with ways to meet growing energy demands and the challenges of climate change, the ability to balance these will require thoughtful, comprehensive, and pro-active planning. We continue to champion the efforts to identify the most environmentally appropriate sites for clean energy projects and transmission lines.

Thank you for the opportunity to comment on this Draft Environmental Impact Statement of the proposed SunZia Southwest Transmission Project. We will continue to remain engaged in this important project and welcome future dialog.

Sincerely,



Karyn Stockdale
Vice President and Executive Director
Audubon New Mexico, the state office of the National Audubon Society
P.O. Box 9314
Santa Fe, NM 87504
kstockdale@audubon.org

Judy Liddell
President
New Mexico Audubon Council
jliddell@msn.com

2307	Comment Response
	See following page(s)

2314

2314

Audubon ARIZONA

Nina Mason Pulliam
Rio Salado Audubon Center
3131 South Central Avenue
Phoenix, AZ 85040
Tel: 602-468-6470
az.audubon.org

Audubon Arizona is the state office of the National Audubon Society and as such we respectfully submit the following comments concerning the Draft Environmental Impact Statement (DEIS) for the SunZia interstate transmission line. We appreciate the extended analysis BLM gave to evaluating the alternative routes for this very large and intrusive project. We remain very concerned that the majority of routes, including the preferred alternative, are proposed for the lower San Pedro River valley and adjacent sky island mountain ranges. The mountains and associated Sonoran desert, grasslands and riparian corridors of southeastern Arizona have been recognized for decades as one of the most biologically diverse regions in the conterminous United States.

Audubon has specific expertise and knowledge about birds, bird habitats and bird related recreation and economic values, therefore we are limiting our comments primarily to those topics. Our overall concern is that the DEIS is lacking in specifics of construction, design, and land disturbing impacts related to surface access for construction and maintenance.

Lower San Pedro River (Benson north to Winkleman)

The San Pedro River is a unique and extremely important biological asset in the arid southwest. As one of the few undammed and flowing rivers the San Pedro functions as a vital corridor and refugia habitat for a wide diversity of plants and animals and exhibits a remarkably intact riparian system including extensive stands of Fremont cottonwood (*Populus fremontii*), Goodding's willow (*Salix goodingii*) gallery forest and large mesquite (*Prosopis velutina*) bosques. Duncan and Slagle (2004) describe the San Pedro River as one of the most significant perennial undammed desert rivers in the United States. Species that are listed or proposed for listing under the Endangered Species Act are represented in sustainable numbers within this corridor.

The National Audubon Society has recognized the San Pedro River corridor from north of Benson to the confluence with the Gila River at Winkleman as a globally Important Bird Area (IBA). The values that earn this recognition include some of the highest nesting densities of riparian obligate birds in the western United States and a critically important fall and spring migration corridor for thousands of neotropical migrants. Identified as an IBA in January of 2007, the lower San Pedro River was scientifically peer reviewed and subsequently designated as a **Global Important Bird Area** in January of 2008. http://aziba.org/?page_id=461 IBA

2314

designation is particularly relevant to protecting critical habitat utilized by birds during some part of their life cycle (breeding, feeding, nesting, and migrating) as well as conserving the general biodiversity of wildlife species.

The lower San Pedro River supports a substantial part of the population for the federally endangered southwestern willow flycatchers (Empidonax tralli extremis) and the western population of Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*) that is currently being evaluated for listing. The Arizona Game and Fish Department documented 164 southwestern willow flycatcher territories consisting of 307 adult birds in 2005, the last year of extensive surveys (English *et al.* 2008). Over 100 species of breeding birds and another approximately 250 species of migrant and wintering birds occur in the area, representing roughly half the number of known breeding species in North America. The San Pedro River serves as a migratory corridor for an estimated 4 million migrating birds each year. Notably, 36 species of raptors, including the gray hawk (*Asturina nitida* = *Buteo nitidus*), Mississippi kite (*Ictinia mississippiensis*), common black hawk (*Buteogallus anthracinus*), and zone-tailed hawk (*Buteo albonotatus*) can be found within the San Pedro River watershed. Regarding the gray hawk, the San Pedro is thought to support more than 40 percent of the nesting gray hawks in the United States. Land birds occurring in significant numbers/density and/or diversity include Bell's vireo (*Vireo bellii*), Lucy's warbler (*Vermivora luciae*), and Yellow warbler (*Setophaga petechial* = *Dendroica petechial*).

These migratory bird values are contributing elements to a collaborative conservation initiative and new national wildlife refuge along the lower San Pedro River in Cochise, Pima and Pinal Counties, Arizona that is proposed by the southwest region of the U.S. Fish and Wildlife Service.

The Lower San Pedro River IBA's southern boundary begins at 3 Links Farms in Cochise County north of The Narrows and follows the San Pedro River downstream, north, through Pima and Pinal counties to Winkelman. The majority of the land is privately owned and only select properties in public ownership or under conservation easement and management are specifically included in the 51.2 square mile, 32,762 acre IBA. (Attached map). Major tributaries that have been identified as having high riparian habitat values in the San Pedro River watershed include Paige Canyon, Redfield Canyon, Hot Springs Canyon, Buehman Canyon and Aravaipa Creek. The riparian habitats in these and similar drainages are of critical importance to the ecological health of this region.

Numerous species of endangered and threatened native fish species persist in the lower San Pedro river watershed. Aravaipa Creek, a possible SunZia Alternative Route, is a major tributary to the lower San Pedro River and contains an intact native fish assemblage, including the endangered spikedace (*Meda fulgida*) and loach minnow (*Tiaroga cobitis*). The presence of a robust population of these fishes in Aravaipa Creek, and the largely unregulated hydrology of its waters, led to a 46.1-mile reach of Aravaipa Creek and its upper tributaries – Deer Creek and Turkey Creek - being designated as spikedace critical habitat. Similarly, critical habitat for these species exists within Hot Springs Canyon (5.8 miles plus 3.4 additional miles within Bass

Canyon, an upper tributary) and in Redfield Canyon (4.0 miles). Hot Springs and Redfield canyons are tributaries to the lower San Pedro River near Cascabel.

The **Arizona Partners in Flight *Bird Conservation Plan*** states, "Riparian woodlands comprise a very limited geographical area that is entirely disproportionate to their landscape importance, recreational value, and immense biological interest (Lowe and Brown 1973). It has been estimated that only 1% of the western United States historically constituted this habitat type, and that 95% of the historic total has been altered or destroyed in the past 100 years (Krueper 1993, 1996)... Riparian woodlands are among the most severely threatened habitats within Arizona.... Maintenance of existing patches of this habitat, and restoration of mature riparian deciduous forests should be among the top conservation priorities in the state". http://www.azgfd.gov/pdfs/w_c/partners_flight/APIF%20Conservation%20Plan.1999.Final.pdf.

1 The analysis in this DEIS that the lower San Pedro River Valley is already impacted and by inference fragmented by human uses is flawed. The recently completed analysis of wildlife habitat fragmentation and corridors identified the lower San Pedro River valley as second only to the Grand Canyon ecosystem for intact fish and wildlife habitats as reported in the "Arizona Wildlife Linkages Assessment Document" conducted by Arizona Department of Transportation (ADOT) and Arizona Game and Fish Department (AGFD) with involvement by FHA, BLM, USFS, USFW, Northern Arizona University. Un-fragmented landscapes are key indicators developed by biologists in assessing the conservation value of regions and sites and the imminence of the threats they face (Baker, 2010). Large blocks of habitat have the potential to sustain viable species populations and they permit a broader range of species and ecosystem dynamics to persist. Studies have shown that even specialized species such as neo-tropical migrants are using the entire watershed, not just the "green ribbon" created by the lower San Pedro River valley (LSPRWA, 2006). The SunZia route alternatives that traverse the San Pedro River Valley or cross through the Aravaipa upper watershed will introduce a linear disruption to a largely un-fragmented habitat block that has been successfully recovering from past human impacts for over 40 years. The road that parallels the San Pedro River from Cascabel to San Manuel is unpaved and has low traffic volume, minimizing the linear impacts to wildlife movement.

2 Much of the land identified for potential routing of the SunZia lines, including the preferred route, are identified by NatureServe and The Nature Conservancy as protected conservation lands either by fee simple acquisition or conservation easement. The proposal to cross lands so identified with a disrupting power line diminishes the value of these lands for ecological conservation. Land owner or manager agreement not-with-standing, Audubon Arizona holds the strong opinion that allowing construction of power lines across designated conservation lands impacts the value of those lands for conservation purposes. (Attached Map)

The Nature Conservancy in their scoping comments to the BLM with regard to the SunZia transmission project summarized a good deal of these conservation efforts:
"Over the last three decades The Nature Conservancy and many other agencies and organizations have been working steadily to protect the Lower San Pedro Basin. This area has

2314	Comment Response
1	The Project is not anticipated to cause fragmentation at a level that would substantially affect function of habitat blocks in and adjacent to the Lower San Pedro River Valley. The comment notes that Cascabel Road "is unpaved and has low traffic volume, minimizing the linear impacts to wildlife movement". Access roads for the Project would have much lower traffic volumes, even if recreational use occurs. Access roads may also be closed and rehabilitated in selected, high-sensitivity locations. The DEIS acknowledges that effects may occur in the discussion of alternatives (Section 4.6.5), but also considers these effects in the context of existing conditions.
2	Comment noted. A discussion of conservation easements along the San Pedro River and elsewhere in the Project study corridors have been added to the FEIS, Section 3.10.3.3, Conservation Easements, in Chapter 3.

2314

become a focal point for conservation and mitigation investments because of the opportunity to protect and restore a relatively undisturbed river system, cross-valley wildlife movement, and ecological processes such as fire that maintain ecosystem health.
Partners in this effort include the Bureau of Land Management, Bureau of Reclamation, Salt River Project, Arizona Game and Fish Department, Pima County and a number of private landowners. The Resolution Copper Company has offered to protect additional lands in the valley through its proposed land exchange for a mine site in Superior. Together, these partners have protected close to 40,000 acres and invested over $25 million in acquisition of conservation lands and appurtenant water rights. Close to one third of the lower river corridor is now in protected status, and stream flow and habitat conditions are improving."

Willcox Playa/Cochise Lakes IBA

This IBA was identified as a **Global Important Bird Area** in October, 2011 and encompasses the 74 square mile, 47,343 acre Willcox Playa, a broad alkaline lakebed fringed with semi-desert grassland (primarily saltgrass and sacaton) and mesquite. **(attached map)**

The playa is seasonally flooded to a shallow depth. Outlying this playa are the satellite lakes/wetlands of Cochise Lakes (or aka Lake Cochise), alkali flats, and Willcox Playa Wildlife Area containing Crane Lake. The Playa itself is administered by the Department of Defense and the U.S. Army Corps of Engineers. It is not managed in anyway, and is posted no trespassing. On the upper east side of the playa is the Arizona Game and Fish Department managed Willcox Playa Wildlife Area, consisting of 555 acres. There are ten "pot hole" ponds, and one 30-acre impoundment at the Wildlife Area. The significant avian values are over-wintering Sandhill Cranes and migratory and wintering shorebirds, waterfowl, and waterbirds. The Wildlife Area (Crane Lake), and Cochise Lakes, for roosting, resting, and feeding. Sandhill Cranes depend heavily on the surrounding agricultural lands of the broader Sulphur Springs and Bonita Valleys for feeding, particularly in fields of waste corn.

The site is important to special status avian species such as Swainson's hawk, scaled quail, chestnut-collared longspur and Cassin's sparrow. It supports significant concentrations of shorebirds (>100) and cranes (>2000). Willcox Playa and environs supports the second largest over-wintering concentration of Sandhill Cranes (Grus canadensis) in Arizona, typically 4,000 to 9,000 birds (White Water Draw Wildlife Area to the south over-winters 10,000 to 22,000 cranes). There are occasional years when crane numbers spike when a large number of birds (>13,000) from White Water Draw switch to roosting in this area (using either the Playa or Crane Lake).

Most significantly both in spring and late summer shorebirds can stop-over in very substantial numbers (400-800 individuals at Cochise Lakes). These in-migration shorebird species using the include: Wilson's Phalarope (April, May, July, Aug., Sept.), Willet (April), Least Sandpiper (April, Aug., Sept.), Western Sandpiper (April, Aug., Sept.), Long-billed Dowitcher (May, Sept.), Black-necked Stilt (July, Aug., Sept.), and American Avocet (July, Aug., Sept.), plus lesser numbers of other shorebird species (Killdeer, Marbled Godwit, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Long-billed Curlew, Baird's Sandpiper, Pectoral Sandpiper, Stilt Sandpiper, and Red-necked Phalarope). Small numbers of some shorebirds occasionally breed

2314	Comment Response
	See following page(s)

2314

within the IBA, including American Avocet and rarely Snowy Plover (Audubon WatchList 2007-Yellow, AZGFD Species of Greatest Conservation Need 2006).

Ducks over-winter on the lakes in large flocks, primarily composed of American Wigeon, Northern Shoveler, Ruddy Duck, Lesser Scaup, Ring-necked Duck, Cinnamon Teal and Green-winged Teal. In rare very wet winters, waterfowl in huge numbers (>15,000, half or which are Green-winged Teal) come to feed and rest within the Playa.

In a 2005 USDA Forest Service Technical Report, Manville said that collisions with power transmission and distribution lines are estimated to kill as many as 175 million birds annually, and an additional tens to hundreds of thousands more birds are electrocuted. The difficulty with quantifying the impact of these utilities is that due to great expanse of area they cover they are poorly monitored for both strikes and electrocutions (Manville 2005). In the San Luis Valley of Colorado, collisions with transmission lines were one of the contributing mortality factors to the experimental whooping cranes population. On certain sections of transmission lines in the San Luis Valley where wetlands and agricultural foods are bisected by transmission lines, Sandhill Crane collision events have been as high as 75 birds a night (Mark Smith pers. comm.).

A 2000 report completed for Idaho Hells Canyon transmission line complex summarized the following factors contributing to the susceptibility of a bird species to collision and the risks associated with a transmission line (Bevanger 1994). (1) biological, (2) topographical, (3) meteorological, and (4) technical aspects. Biological aspects to consider include bird vision, flight abilities, flight speed, activity patterns, and behavior during displays, hunting, or landing. Topographical factors to consider include the transmission line height and alignment in relation to the surrounding terrain. Bird flight lanes often concentrate in low spots in the landscape, e.g., river drainages. Lines that run perpendicular to these areas are more apt to be hit by birds. Line siting in the Sulphur Springs Valley segment of Arizona should consider these factors and obtain information about the major Sandhill crane and avian flight corridors north to south across Interstate 10 between the Willcox Playa and Bonita valley to the north. The SunZia lines should be buried through identified Sandhill crane movement and migration corridors. Research at diverse locations reveals that Sandhill crane collisions with powerlines are most prevalent for birds moving to and from feeding and roosting locations. An inferior solution to buried lines is installation of avian collision averters as recommended by Murphy, etal. 2009.

3

Cienega Creek Potential Important Bird Area

Located southeast of Tucson, this small riparian habitat is a Pima County designated conservation area that has habitat for riparian obligate birds and native fishes. One of the Tucson route alternatives cuts through this site and another is immediately adjacent closer to the interstate corridor. We strongly recommend avoidance of this riparian habitat.

4

Economic Values of Ecotourism

We wish to emphasize the economic values of watchable wildlife, particularly bird watching, to the communities of the San Pedro River and its tributaries, as well as Wilcox. The Willcox Playa and associated environs represent well-known ecotourism

2314	Comment Response
3	The BLM preferred alternative crossing the Sulphur Springs Valley would be parallel to two existing transmission lines that do not have bird diverters or any other mitigation measures implemented. The BLM has requested reports from informal monitoring conducted by AZGFD in this area, but not specific to the existing transmission lines. To date, there is no available information that the existing lines create a substantial hazard for birds foraging in the adjacent farmland. Colocating transmission lines can increase the overall visibility of the entire corridor relative to a single transmission line. However, bird diverters may also be installed in this location if information indicates that there would be a benefit. The existing transmission lines would likely remain without bird diverters, unless installed as a discretionary action by TEP. Burying new lines adjacent to existing lines would not be a viable alternative to minimize impacts.
4	Comment noted. The BLM Preferred Alternative is Subroute 4C2c, which avoids this area.

2314

hot-spots and birders in particular come from all over the world to bird this region. Ecotourism is especially important for the dispersed rural communities in Cochise, Pima and Pinal counties. Willcox hosts a major birding festival focused upon the wintering Sandhill Crane (*Grus canadensis*) population that attracts hundreds of visitors every year. If ecotourism were reduced because of direct, indirect and cumulative impacts of the transmission line, there would be direct economic impacts to the various communities, from Winkelman to Benson and Willcox, that are not assessed in the DEIS.

5

In a 2006 study, the Outdoor Industry Foundation reported that all outdoor wildlife-related recreational activities generated $730 billion annually for the United States economy, and of that, watchable wildlife generated $43 billion annually. They reported 66 million Americans participated in wildlife viewing, which supported 466,000 jobs. Estimated economic returns included retail sales averaging $8.8 billion, trip related expenditures of $8.5 billion, and state and federal tax receipts of $2.7 billion. The report is available at http://www.outdoorindustryfoundation.org./ Although much of this economic impact is due to outdoor recreation, other visitors may come to these areas for sight-seeing, for family gatherings, for educational benefits and for many other values not captured by the category of outdoor recreation. According to a 2011 study by the National Fish and Wildlife Foundation, http://www.nfwf.org/Content/ContentFolders/NationalFishandWildlifeFoundation/HomePage/ConservationSpotlights/TheEconomicValueofOutdoorRecreation.pdf, a minimum estimate of the combined value of outdoor recreation, nature conservation and historic preservation shows that over 9.4 million jobs were created while $107 billion was generated by local, state and federal tax revenues.

The most recent economic analysis using US Fish and Wildlife Service data calculated for each Arizona county states that ecotourism is worth over $1.5 billion dollars to Arizona each year - over $300 million in Pima County, over $95 million in Pinal County, and over $25 million in Cochise County each year. http://tucsonaudubon.org/images/stories/conservation/AZ_County_Impacts_-_Southwick.pdf. This analysis revealed that Arizona created 15,058 full and part-time jobs and accounted for salaries and wages of $429,391,051, or nearly $430 million in total household income. Arizona engendered over $57 million in state taxes (state sales taxes of $46,756,837 and state income taxes of $10,821,828) and federal income taxes of $75,544,307. Home owners near parks and protected areas are repeatedly seen to have property values more than 20% higher than similar properties elsewhere. This information should be included in the economic analysis section of the DEIS.

2314	Comment Response
5	The economic role of public lands is acknowledged in the DEIS, As stated in Section 4.13.4.5 "impacts (direct and indirect) to recreation and tourism have been identified by the public during the scoping process. The description of land use impacts to recreation areas or trails resulting from Project construction or operation have been described in Section 4.10.5 and visual impacts to recreation users have been described in Section 4.9.3. The Project would not substantially change the use of recreation areas or trails, and the number or type of recreation users would not be likely to change, therefore economic effects to recreation are not anticipated. Changes in the tourist economy would therefore not be expected." It is acknowledged that there are many ecotourism attractions throughout the study area, although it is noted that the BLM Preferred Alternative would not cross Aravaipa Creek, and would not affect the Wilcox Playa area or any of the crane watching sites identified on the Wings Over Wilcox festival map. Cumulative impacts to economic resources including recreational activities associated with ecotourism have been identified in Section 4.17.4.13 of the DEIS. As stated cumulative impacts on recreational resources could occur as a result of utility scale solar and wind developments, which could in turn affect ecotourism. It is likely that ecotourism will continue to be a positive trend although the level of impact cannot be quantified without speculative assumptions regarding future levels of recreation and tourism within the analysis area. As indicated in Section 4.13.4.5 of the DEIS studies have been reviewed regarding the effects of high voltage transmission lines (HVTLs) on property values. These studies found that often no effect to property values occur based on the presence of HVTLs; in studies where effects were found, the effects generally resulted in a 10 percent or smaller reduction in property value.

2314

6 An over-arching concern we have about the decision process for selecting the SunZia route is the complete lack of design specifics. Many of our concerns and the concerns voiced in earlier public comment periods are about the details of construction and maintenance, details that are not addressed in this DEIS. Of particular concern is the accidental introduction of invasive plant species including but not limited to African buffelgrass (*Pennisetum ciliaris*), blue panic (*Panicum antidotale*, a Federal Noxious Weed), bermuda grass (*Cynodon dactylon*), Sahara mustard (*Brassica tournefortii*), and another African grass, Lehman's Lovegrass (*Eragrostis lehmanniana*). The highest risk of invasive species spread is by being carried on vehicles and equipment during construction and also during post-construction maintenance. Spread of these species increases the risk of catastrophic fire and degradation of the upland Sonoran desert biotic communities.

SunZia Proposed Routes Identified by Audubon Arizona as having highest potential impacts to avian species:

7 The route alternative segments that cause us the greatest concern are highlighted in red on the attached map. We recommend that specific power line designs and construction techniques be included in the analysis of alternative routes. We recommend including in the final documents specific design requirements that will prevent a need to remove or cut trees in riparian corridors and avoidance of bird strikes. Additionally, the final EIS should include an analysis of specific construction methods that will reduce and/or eliminate the need for new roads.

Sincerely,

Vashti "Tice" Supplee

Director of Bird Conservation, Audubon Arizona

2314	Comment Response
6	Table 3-29 (page 3-79) identifies noxious weed species for which suitable habitat may be present within the study corridor. In addition to the effects identified in the DEIS, the final POD will specify a detailed Noxious Weed Management Plan. The purpose of this plan is to provide guidance on control of potential noxious weed infestations along the ROW during construction of the Project. In particular, this weed plan will require a biologist to conduct pre-construction noxious weed surveys which will identify infestations along the ROW. These identified noxious weed locations will be illustrated in the map volume with the final POD so construction personnel are aware of the locations. The Plan also outlines noxious weed management for construction equipment along the ROW (training, working in weed-free areas first, cleaning stations, etc.). Preventative measures, control measures, and agency-specific requirements are outlined in the plan as well as a list of BLM-approved Herbicides and SOPs. This Noxious Weed Management Plan was based on the principals and procedures outlined in the BLM Integrated Weed Management Manual 9015.
7	As indicated Table 2-11 of the DEIS the selective mitigation measures are prescribed that require special design and construction to minimize impacts to riparian areas (e.g., SE-8). Design engineering would be completed with the final POD that will include a detailed mitigation plan for design and construction.

2352	Comment Response
	See following page(s)

2352

Continental Divide Trail Coalition

P.O. Box 552 Pine, CO 80470*www.continentaldividetrail.org*(720)-340-2382

August 21, 2012
Adrian Garcia
Project Manager
Bureau of Land Management
New Mexico State Office
301 Dinosaur Trail
Santa Fe, NM 87508-1560

Re: SunZia Transmission Project Draft Enviromental Impact Statement

Dear Mr. Garcia,

I am writing on behalf of the Continental Divide Trail Coalition (CDTC) to provide comments on the SunZia Southwest Transmission Project Draft Environmental Impact Statement. Our comments are specific to the planning and management of the Continental Divide National Scenic Trail.

Background

The Continental Divide National Scenic Trail (CDNST) was designated by Congress in 1978 as a unit of the National Trails System. The 3,100 mile CDNST traverses the magnificent Continental Divide between Mexico and Canada. It travels through 25 National Forests, 21 Wilderness areas, 3 National Parks, 1 National Monument, 8 BLM resource areas and through the states of Montana, Idaho, Wyoming, Colorado and New Mexico. The vision for the Continental Divide National Scenic Trail is to create a primitive and challenging backcountry trail on or near the Continental Divide to provide people with the opportunity to experience the unique and incredibly scenic qualities of the area. For many of the same reasons National Parks are established, National Scenic Trails are created to conserve the nationally significant scenic, historic, natural and cultural qualities of the area. In addition, National Scenic Trails are designed for recreation and the enjoyment of these very special places.

The Continental Divide Trail Coalition (CDTC) was recently established (June 2012) to provide a national voice and advocate for the CDNST and ensure all areas of Trail protection, promotion, and volunteer stewardship continue to be fully realized. Prompted by the continued threat of a lack of

progress in the Trail's completion due to shrinking agency budgets and to ensure opportunities for public involvement continued in the absence of a national nonprofit partner, trail enthusiasts formed the Continental Divide Trail Coalition to work with the Federal Agencies tasked with administrative responsibility for the CDNST. The CDTC is comprised of natural resource professionals, CDNST volunteers and supporters, and most importantly Trail users. CDTC is committed to work on behalf of the Trail and the Trail's community. The goal of the CDTC is to become the umbrella group for all CDNST Trail Groups and as a national non-profit partner with the federal agencies in the management of the CDNST, to advise on policy, monitor policy impacts, advocate for congressional appropriations, and establish community based on-going volunteer stewardship of the Trail.

CDTC recognizes the need for additional transmission corridors and lines to accommodate the growing industry of alternative energy sources available in New Mexico. However, CDTC would like to address our concerns for the affect this proposed project will have on the planning and management of the Continental Divide National Scenic Trail.

Trail Location in the Project Area:

1 The CDNST is located in and around the proposed Lordsburg Substation. For specific location, we recommend contacting USFS CDNST Program Administrator who may provide you with a location map. The trail in the are will be impacted by both the construction of the substation facilities as well as the transmission lines coming into and out of the facility.

Nature and Purpose of the CDNST:

As stated in the CDNST Comprehensive Plan, "the nature and purposes of the Continental Divide National Scenic Trail are to provide for high quality, scenic, primitive hiking and horseback-riding, non-motorized recreational experiences and to conserve natural, historic, and cultural resources along the Continental Divide." As stated in the CDNST Study Report (page 14) "One of the primary purposes for establishing the Continental Divide National Scenic Trail would be to provide hiking and horseback access to those lands where man's impact on the environment has not been adverse to a substantial degree and where the environment remains relatively unaltered. Therefore, the protection of the land resource must remain a paramount consideration in establishing and managing the trail and its corridor. There must be sufficient environmental controls to assure that the values for which the trail is established are not jeopardized ".

Some general findings from the CDNST Study Report that assist in describing these terms include:

a) "Designation and establishment of a 3,100 mile Continental Divide Trail…would provide the American people with recreational opportunities of national significance and that trail users would wind their way through some of the most spectacular scenery in the United States and have an opportunity to enjoy a greater diversity of physcial and natural qualities than found on any other extended trail." (Study Report; page 4)

b) The Study Report also "advocates that the most minimal development standards consistent with these circumstances be employed..the trail should be regarded as a simple facility for the hiker-horseman." (Study Report; page 8)

2352	Comment Response
1	Comment noted

2352

c) The Study Report describes the trail experience as an "intimate one, where one can walk or ride horseback across vast fields of wildflowers and contemplate a story dating from the dawn of earth's history…along the way the tranquility of the alpine meadows, verdent forests and semi—desert landscape overwhelms anyone who passes that way. The Trail would provide the traveler his best encounter with the Continental Divide—its serenity and pure air—and would supply for every trail traveler some of the world's most sublime scenes." (Study Report; page 18)

The Study Report further identifies the significant qualities, characteristics and trail opportunities of the proposed CDNST in five representative segments on pages 20-52. Excerpts include:

1. Scenic Qualities: Spectacular Scenery of the quality and magnitude along the proposed CDT route is not available anywhere in the Continental United States. The trail traverses a variety of terrain, including high desert, forests, geologic formations, and mountain meadows. Flora abounds in the near views, while distant views of major valleys and maintain peaks are exceptional. (Study Report page 98)
2. Cultural Qualities: There are significant segments of the trail and adjacent trails that were used by early-day Indians, ancient cliff-dwelling tribes, Spanish explorers and mountain men in their travels within and through the Continental Divide area. Little visible evidence is left of these activities; however, through interpretative signing, trail users will be alerted to the cultural significance of the area. (Study Report page 101)
3. Historic Qualities: Many signs of historical activity are within the vicinity of the trail and throughout its entire length. Thus, any person visiting the area may have some advance knowledge of the historical significance of the area to make the visit more meaningful. (Study Report page 103)
4. Natural Qualities: The "visitor" of the proposed route of the CDNST would encounter a great variety of terrain, geology, climate, and plant and animal life. This would include the unique and unusual character of Glacier, Yellowstone and the Rocky Mountain National Parks and the back-country solitude of 16 (now 25) National Forest Wilderness and primitive Areas, as well as the living quality of the Red Desert of Wyoming. Certain plants, trees, and animals that may be observed along the Trail are unique to the area traversed. (Study Report page104, as modified)

Incorporating the CDNST Comprehensive Plan into the Mimbres Resource Management Plan:

CDTC is working to develop and encourage consistent management direction for the CDNST across different administrative unit boundaries. We support the direction as expressed by the CDNST Comprehensive Plan because we feel it offers all administrative units responsible for managing the Trail and its corridor the necessary information and direction to fulfill the intent of the National Trail System Act and ensures consistent administrative treatment of the Trail's recreational, natural, and cultural resources.

In review of the DEIS, we discovered the new direction for the CDNST as described in the 2009 CDNST Comprehensive Plan has not been used to develop or evaluate the alternatives included in this proposal. Specifically, the Mimbres Resource Management Plan (RMP) does not reflect the new direction, the evaluation of impacts or treatment of the CDNST in the current DEIS is not consistent or conforming. Therefore without the resolution of this issue, it is inappropriate to determine what, if

2352	Comment Response
	See following page(s)

any, impacts the Sun Zia transmission line may have on the nature and purposes of the CDNST. In order to accomplish this, CDTC recommends the Mimbres Resource Management Plan be amended to incorporate this significant new information that will affect land use allocations. Furthermore, we feel that any determination of action may not be made until the primary issues addressing the utilization of the 2009 CDNST Comprehensive Plan in Mimbres RMP occur and bring the plan into compliance.

2 Adopting CDNST direction in the RMP is within the scope of the SunZia EIS due to potential direct and cumulative impacts of the proposed action and expected connected. Once the Mimbres RMP is revised or amended, the SunZia (and Southline) transmission line proposal can be further assessed following NEPA processes. The EIS needs to objectively assess and disclose whether the proposal and connected wind and solar energy developments would substantially interfere with the nature and purposes of the CDNST. Projects that would result in a substantially interference should not be permitted.

CDNST Comprehensive Plan Direction

3 Protection includes providing consistent and deliberate management direction for issues such as a desired condition for the Continental Divide National Scenic Trail, scenery management practices, suitable Recreation Opportunity Spectrum (ROS) classification(s), and various other management practices related to timber management, mineral extraction, species of concern, roads, and other special uses within or proximate to the CDNST. We recommend a consistent approach to treatment and recognition of the CDNST as well as the other National Scenic and Historic Trails affected by this Draft EIS. Therefore, CDTC requests this new direction be utilized in this process.

Special Resource Management Area:

CDTC recommends that upon amendment, the Mimbres RMP should address CDNST integration needs by establishing a revised Special Recreation Management Area (SRMA) direction following the guidance in IM No. 2011-004 or any more recent National Trail planning direction.

Specific recommendations regarding management for the Desired Experience for the CDNST

CDTC promotes the following desired condition for the CDNST Corridor:

The CDNST is a continuous trail in nature from the Mexico-New Mexico Border to Montana–Canada Border for travel primarily by hikers and equestrians through the wild, scenic, forested, desert and culturally significant lands of the Rocky Mountains. It is usually a simple path, purposeful in direction and concept, favoring the Continental Divide and located for minimum construction to protect the resource. The body of the Trail is the lands it traverses and its soul is in the living stewardship of the volunteers and workers of the Trail community.

Views from the CDNST are predominantly wide-ranging and grand in nature. The trail offers a diversity of topography and a variety of vegetation and animal life exposing the user to the entire range of land forms, water features, history, and uses of the land that are found along the Rocky Mountain Region. The corridor appears natural to the visitor and is characterized by a range of ecological life zones.

2352	Comment Response
2	Comment noted
3	The CDT is recognized as a National Scenic Trail in the visual resources section of the DEIS. As such it was considered a high sensitivity viewing location and was selected as a KOP and simulation viewpoint to ascertain impacts.

2352

This special area retains a natural healthy forested and alpine landscape character shaped by both natural processes and humans. Visitors will experience diversity of native plant and animal species. This corridor traverses a range of Recreation Opportunity Spectrum (ROS) classes. The CDNST setting will either be consistent with or complement the primitive and semi-primitive non-motorized ROS Class. Careful trail design will allow for an appearance of a more primitive setting than the recreation opportunity spectrum would predict. The linear nature of the corridor is recognized in determining the ROS class. Roads, utility corridors, or signs of mineral development may be seen, yet they remain visually subordinate.

An atmosphere of self-reliance and respect for CDNST values is fostered and all activities in the Special Area are designed to maintain or enhance the CDNST experience.

CDNST desired conditions should include a "recreation experience not materially different in quality than that extended by a bona fide hiking and equestrian trail and one that is":

1. quiet
2. in a wild and primitive setting
3. with a natural surface single track (18-36 inches wide)
4. harmonizes and compliments the surrounding landscapes
5. travel is at a slow pace

Therefore, CDTC recommends the inclusion of CDNST management direction to achieve the following:

1. serve to protect the significant experiences and features that exist along the CDNST
2. establish the best location for a non-motorized CDNST through the most primitive, scenic, diverse and undeveloped landscapes on or near the CDNST that will provide a wide range of experiences and challenges
3. allow for existing trails to be considered for the final CDNST route so long as they are non-motorized and meet the nature and purpose for a National Scenic Trail
4. foster communication, participation and partnership along the CDNST
5. require monitoring and evaluation of the conditions on and around the CDNST
6. assure proper and sensitive standards pertaining to establishment, operation and maintenance of the trail. Further, it would provide common objectives and means to coordinate the efforts of many agencies and interests having responsibility for implementation." (Study Report; page 5)

Protection of Visual Resources

CDNST Comprehensive Plan direction that states the USFS Scenery Management System (SMS) is the framework for integrating all scenery management data into all levels of forest planning. The SMS identifies the existing landscape character, visual sensitivity, and scenic integrity, and how actions may affect and alter those resources. We encourage values of Very High or High whenever possible to meet the nature and purpose of the CDNST. In some cases, where the CDNST crosses major highways, or is in proximity to more urban settings, it may result in a value of moderate as an interim, but the goal should always be to attain a level higher than would be suggested by its classification.

2352	Comment Response
	See following page(s)

2352

4 CDTC is concerned that the approach of the project proposal risks the loss of protection of resources central to the Trail experience. We recommend the mapping of visual resources and the impacts to these resources should be done in a manner consistent with the Scenery Management System to adequately protect the integrity and quality of the scenic resources in the areas traversed or impacted by the identified project location.

Development and the Continental Divide National Scenic Trail

Development Projects like wind energy farms, natural gas-pipelines, electric transmission lines, telephone trunk lines, communication towers and many smaller utility–distribution lines of all types already cross the Trail in many locations. These sites are, by nature, intensive, high profile land uses. 5 The visual impacts and, in some cases, the audible impacts of these facilities detracts from the primitive recreational experience provided by the Trail. These developments often can be seen for miles from the trail, disrupting an otherwise undisturbed scene (or scenery) found in these unique environments for many miles. Adverse impacts also include lights, access roads, cleared swaths of 6 land, off-road vehicle access on utility right-of-ways, guy wires, chain link fences, and chemical treatments of the vegetation in the corridor. These ancillary impacts are often more intrusive than the 7 lines, or sites themselves. Furthermore, the cumulative impacts of the expansion and development of utility corridors and facilities upon the CDNST environment are substantial.

To this end, CDTC seeks to minimize the impacts of utility developments and their associated facilities on the Trail's resources. To do so, CDTC encourages avoiding the following resources whenever possible in sighting utility corridors and facilities near the Trail:

8
1. Wilderness areas and their adjacent buffer zones;
2. Semi-primitive non-motorized areas and other special management or natural areas;
3. Areas of significant cultural, historic and natural value;
4. The Foreground zone as determined by Visual Resource Management system for all Trails, and as seen from prominent viewpoints and key scenic features such as rock outcrops with large expansive vistas, or open landscape, sub alpine, alpine areas where the landscape is uninterrupted by man's influence or development;
5. Wetlands and other important natural features; and
6. Any other special area where important Trail values, such as a sense of remoteness, would be compromised.

In addition, we encourage the following guidelines to identify areas, where when necessary to cross, parallel or otherwise include the CDNST, utility lines and facilities may be located as to reduce their impacts to the CDNST:

9
1. Locating at a site where the CDNST crosses an existing state or federal highway or highway intersection. In these instances, through applying sound sighting procedures, many of these crossings may only be visible at the point of intersection.
2. Locating at a site where the CDNST crosses areas that are already developed, and classified as Rural or Urban by the USFS Recreation Opportunity Spectrum (ROS);
3. Upgrading or co-aligning a new corridor with existing lines, or relocating existing lines into new single corridors, and the subsequent decommissioning of replaced or relocated utility lines;

CDTC Comments: Sun Zia DEIS 8/21/2012 6

2352	Comment Response
4	Both the SMS and VRM systems are recognized in the 2009 Continental Divide National Scenic Trail Comprehensive Plan (page 12). It's also noted that "On public lands administered by the Bureau of Land Management, the visual resource inventory will follow the procedures outlined in the BLM Manual Section 8400." (Page 13). The visual resource inventory and impact assessment was based on the BLM VRM System (Manual 8400). The visual assessment included a complete analysis of all lands, regardless of jurisdiction, for scenic quality and viewing locations including associated KOPs (travel routes, recreation, residences) as well as conformance with VRM Classifications. The route to the north occurs on private land when crossed by the project; therefore, visual management designations are not applicable. The route to the south would cross the CDT while on BLM land which is currently designated as VRM Class II. Regarding the integrity and quality of the scenic resources, it should be noted that the southern crossing occurs in an area south of Lordsburg and is highly modified (mining operations, water tower, roads, and radio towers) with facilities that exhibit similar form, line, color, and texture as compared to the proposed project. The northern crossing is also modified and the project would occur near an existing substation with a 345kV transmission line and multiple 115kV transmission lines converging at the substation.
5	See response to comment No. 4, paragraph 2 regarding integrity and quality of the existing scenic resources.
6	Comment noted
7	See response to comment No. 4, paragraph 2 regarding integrity and quality of the existing scenic resources.
8	As indicated in Table 2-11 in the DEIS, selective mitigation measures are prescribed that would minimize visual and recreation impacts to trails (e.g., SE-2 and SE-10).
9	Comment noted. Also please see response to comment No. 8.

2352

9

4. Utilization of an underground route through open areas for natural gas pipelines; and
5. Passage through an area where Trail values, such as a sense of remoteness, would not be compromised.

Most importantly, we ask and encourage the review teams to engage with CDTC and our agency partners to identify these key areas and potential mitigation when the CDNST and its unique resources can not be avoided.

Protection of Recreational Experiences

As a unit of the National Trails System, and otherwise considered designated area, the project proposal should include a fully evaluated section on impacts to recreational experiences within, intersected by, or otherwise impacted by the proposed project. We realize that each section of the CDNST is unique with specific localized conditions, however, we also feel that there should be consistent treatment of the Trail and its resources and the experience it offers all users in the discussion of impacts to recreational resources in this document.

10

CDTC supports the use of the Recreation Opportunity Spectrum (ROS) system to delineate, define, and integrate CDNST recreational opportunities in land management planning (FSM 2311.1). The CDNST should be located in Primitive and Semi-Primitive Non-Motorized ROS settings http://www.fs.fed.us/mntp/plan/LRMP-D.pdf where available in the land management planning area, while recognizing that the CDNST will intermittently traverse through more developed areas, and across designated motor vehicle use routes (Subpart B— Designation of Roads, Trails, and Areas for Motor Vehicle Use, Part 212 Travel Management, of Title 36 Code of the Code of Federal Regulations (36 CFR 212 subpart B)), in order to provide for a continuous travel route between Canada and Mexico along the Continental Divide. Where the CDNST must be located in a ROS setting of lesser scenic integrity, management guidelines for that segment should reflect long term goals to improve the setting to reflect a primitive and semi-primitive setting.

Cumulative Impacts to the Continental Divide National Scenic Trail

11

Perhaps our greatest concern has to do with cumulative effects. If full environmental-impact analysis occurs only at the project or activity level, then how does the agency propose to assess the cumulative impacts of multiple projects or activities over time and their impacts to the entire CDNST? While we applaud the agency's intentions to undertake such a collaborative process, we are concerned that without rigorous attention to the cumulative impacts of incremental decisions, the cumulative impacts of multiple projects and activities could be obscured and lead to unintended consequences that may or may not be consistent with a particular management direction for the CDNST. CDTC believes that for linear resources, such as the CDNST or any National Scenic or Historic Trail, that are affected by more than one project area like this over its entire 3,100 mile span, that special attention be given to a full exploration and understanding of the cumulative effects to these very special and unique resources.

Mitigation of impacts to the CDNST

12

We recommend that the EIS address mitigation to help alleviate direct, ancillary and cumulative impacts to the CDNST in identification of this potential wind energy development project. The section should address the need for both on-site and off-site enhancements to benefit the unavoidable scenery

2352	Comment Response
10	Recreation impacts to viewers are discussed in the visual resources section of the DEIS. When crossing the CDT, the project would be viewed setting that is primarily associated with modern modifications and disturbances. Section 4.9.3.2.
11	As stated in Section 4.9.3.2 of the DEIS, "impacts for high concern recreation viewers associated with the Continental Divide National Scenic Trail are anticipated where the Project would cross this national scenic trail (at the BLM Preferred Alternative). Viewers here would view the Project in context with an existing substation, an existing 345 kV line, and multiple 115 kV lines converging at the substation (Link B121); therefore, contrast would be reduced." The cumulative effects analysis included energy development scenarios, which require a larger area of effect as compared to transmission line projects. This larger analysis area in southern New Mexico covers portions of the CDT defined by similar vegetation communities, terrain, and cultural/historic resources specific to this region (Basin and Range Physiographic Region) of the trail and is a reasonable area of effect for the cumulative analysis.
12	The final Plan of Development (POD) will be completed prior to construction and will include detailed engineering for the Project. This document will specify all recommended mitigation measures along the ROW and will include identification of sensitive resource areas such as National Scenic and Historic trails, biological resource areas and cultural sites. Also please see response to Comment No.8 regarding selective mitigation measures prescribed in the DEIS.

2352

and Recreation Opportunity Spectrum setting effects on the CDNST and other National Scenic and Historic Trails. Potential mitigation to minimize impacts could be both on site and off site strategies and might include the following:

12

1. Funding for CDNST trail development and maintenance, corridor management, rights-of-way acquisition, and trailhead developments;
2. Removal of facilities that are no longer needed to improve the quality of the Trail corridor;
3. Relocation of existing smaller capacity transmission lines to the corridors identified by the EIS, and reclamation of those sites back to a natural state;
4. Careful review of the height and type of power line towers;
5. Careful location of power line towers so as to minimize their impacts, like using perpendicular crossings versus parallel routings to the Trail;
6. Color and reflectivity of facilities to minimize their lay on the landscape; and
7. Landscape treatment within the right-of-way and at other places that screen structures.

Thank you for the opportunity to express our concerns regarding the proposed SunZia Southwest Transmission Project. We request to remain on the mailing list and to be engaged in future public involvement processes regarding this process. I can be reached at (540) 449-4506 and tmartinez@continentaldividetrail.org if needed to clarify our comments.

Sincerely,

Teresa Ana Martinez /s/

Teresa Ana Martinez,
CO –founder and Director
Continental Divide Trail Coalition

Cc: Greg Warren-United States Forest Service, Jim Wolf-Continental Divide Trail Society, Gary Werner- Partnership for the National Trails System, Deb Salt- Bureau of Land Management,

2352	Comment Response
	See following page(s)

2376

From: Warren, Greg -FS
To: BLM_NM_SunZia_Project
Cc: Sippel, James W.; White, Laura
Subject: SunZia Transmission Project Proposal DEIS Comments - 77 FR 31637
Date: Saturday, August 18, 2012 9:01:20 PM
Attachments: cdnst_comprehensive_plan_final_092809.pdf
attachment_mimbres_rmp_cdnst_srma.docx

Adrian Garcia
Project Manager
Bureau of Land Management
New Mexico State Office
301 Dinosaur Trail
Santa Fe, NM 87508-1560

Following are comments on the Draft Environmental Impact Statement (DEIS) for the proposed SunZia Transmission project (77 FR 31637). These comments are specific to the planning and management of the Continental Divide National Scenic Trail (CDNST).

The Mimbres RMP does not provide for the management of the CDNST as described in the attached CDNST Comprehensive Plan. The CDNST Comprehensive Plan sets forth direction that is consistent with the CDNST Congressional Study Report to guide the development and management of the CDNST across all Federal agencies. The management direction in Chapter III part E of the CDNST Comprehensive Plan should be followed in the development and adoption of resource management prescriptions for the RMP.

1 The purpose and need section of the SunZia DEIS needs to address the 2009 CDNST Comprehensive Plan as significant new information that affects land use allocations and identify the need to apply the CDNST direction by amending or revising the Mimbres RMP. Incorporating appropriate CDNST direction in the RMP needs to occur prior to or concurrently with addressing project proposals such as the SunZia and Southline transmission line projects. Adopting CDNST direction in the RMP is within the scope of the SunZia EIS due to potential direct and cumulative impacts of the proposed action and expected connected actions (solar and wind farm developments).

2 The amended RMP should address CDNST integration needs by establishing revised Special Recreation Management Area (SRMA) direction following the guidance in IM No. 2011-004 or any more recent National Trail planning direction. Related, I would appreciate your consideration of the guidance outlined in the SRMA direction that is attached when developing CDNST direction for the Mimbres RMP. Once the Mimbres RMP is revised or amended, the SunZia (and Southline) transmission line proposal can be further assessed following NEPA processes. The EIS needs to objectively assess and disclose whether the proposal and connected wind and solar energy developments would substantially interfere with the nature and purposes of the CDNST. Projects that would result in a substantially interference should not be permitted.

3 Substantial interference determinations would also apply to other National Scenic and Historic Trails in the project area. In general, visual quality objectives along National Trails should be either Class 1, Class II, and occasionally Class III. Projects and activities should result in a visual degree of

2376	Comment Response
1	Comment noted
2	Comment noted
3	Both the SMS and VRM systems are recognized in the 2009 Continental Divide National Scenic Trail Comprehensive Plan (page 12). It's also noted that "On public lands administered by the Bureau of Land Management, the visual resource inventory will follow the procedures outlined in the BLM Manual Section 8400." (Page 13). The visual resource inventory and impact assessment was based on the BLM VRM System (Manual 8400). The visual assessment included a complete analysis of all lands, regardless of jurisdiction, for scenic quality and viewing locations including associated KOPs (travel routes, recreation, residences) as well as conformance with VRM Classifications. The route to the north occurs on private land when crossed by the project; therefore, visual management designations are not applicable. The route to the south would cross the CDT while on BLM land which is currently designated as VRM Class II.

2376

contrast that is either none or weak if a substantial interference of the nature and purposes of National Trails are to be avoided.

Thank you for considering these comments. Please contact me if you have any questions.

Greg Warren

Greg Warren . National Administrator . Continental Divide National Scenic Trail
740 Simms Street, Golden, CO 80401-4720
303-275-5054 . gwarren@fs.fed.us . www.fs.fed.us/cdt

2376	Comment Response
	See following page(s)

2380

USDA United States Department of Agriculture | Forest Service | Southwestern Region Regional Office | 333 Broadway SE Albuquerque, NM 87102 FAX (505) 842-3800 V/TTY (505) 842-3292

File Code: 2350, 7720
Date: August 20, 2012

Adrian Garcia
Project Manager
Bureau of Land Management
New Mexico State Office

Dear Mr. Garcia:

Following are comments on the Draft Environmental Impact Statement (DEIS) for the proposed SunZia Transmission project (77 FR 31637). These comments are specific to the planning and management of the Arizona National Scenic Trail (Arizona Trail).

Alternatives Analysis:

The Arizona Trail, Arizona's only national scenic trail, was designated in March, 2009, and the Comprehensive Management Plan (CMP) is still under development. Without CMP direction and subsequent RMP amendments, BLM Manual direction (under revision) and guidance from the National Trails System Act (NTSA) (16 U.S.C. 1241-1251), as amended, must be followed.

Sec. 7 (c). of the NTSA states: "…. *Other uses along the trail which will not substantially interfere with the nature and purposes of the trail, may be permitted by the Secretary charged with the administration of the trail*…." The EIS should objectively assess and disclose whether each alternative for the proposed transmission lines, and connected wind and solar energy developments, would substantially interfere with the nature and purposes of the Arizona Trail, and to what degree.

1 Substantial interference determinations should also be made for other National Scenic and Historic Trails in the project area. In general, visual quality objectives along National Trails should be either Class 1, Class II, and occasionally Class III. Projects and activities should result in a visual degree of contrast that is either none or weak if a substantial interference of the nature and purposes of National Trails are to be avoided.

Terms to be referenced (BLM Manual 6250 –National Scenic and Historic Trail Administration): *Associated settings; avoid; compatible activities; incompatible use; National Scenic Trail; National Trail Right(s)-of-Way; resources, qualities, and values; substantial interference.*

The Arizona Trail corridor represents a connected landscape across the state that encompasses some of the most scenic and remote areas in Arizona. It offers an unparalleled recreational and visual experience to long distance hikers, mountain bikers and equestrians that is continuous beyond the boundaries of the immediate Sunzia project area. More and more people are coming

2380	Comment Response
1	The land manager for the portions of the trail crossed by the Project is ASLD and do not have federal visual management objectives (i.e., VRM, VQO, or SIO). However, visual impacts were assessed for the trail and based on these impacts mitigation measures have been recommended to reduce, to the extent practicable, impacts to trail users/viewers (i.e., perpendicular crossings, maximize spans, etc.).

2380

from across the nation, and from Europe and other overseas locations, to hike the Arizona Trail now that it is becoming better known. Completing the entire Arizona Trail is most likely a once in a lifetime opportunity and involves a huge investment in planning and logistics. Existing and foreseeable impacts along the length of the Arizona Trail corridor, such as transmission lines and other energy projects, and mining projects, have the potential to degrade the overall visual and recreational experience of Trail users, and to threaten the qualities for which the Arizona National Scenic Trail was designated. Degradation of the Arizona Trail could translate into fewer visitors, which in turn could impact local businesses that provide lodging and other trail services. The BLM is encouraged to include in its cumulative effects analysis foreseeable actions and existing impacts along the entire length of the Arizona Trail corridor as they combine with the proposed project and connected actions to affect the trail experience, national scenic trail character, and local economies. 2

Mitigation Considerations for the Plan of Development:
Most people travel the Arizona Trail in spring or fall in order to avoid weather extremes. The average amount of time for a through hiker to complete the trip is about 40 days. If there are multiple projects taking place simultaneously along the length of the Trail they will contribute to an overall reduction in the quality of the experience, and could create logistical and scheduling problems for these long distance travelers. The following short-term mitigation measures are recommended for projects that cross the Arizona Trail:

- Provide public notice and information about timing and nature of project work occurring on the Arizona Trail. Specifically, provide dates and detour information to the Arizona Trail Association and provide news releases to the press well in advance of the project.
- Clearly identify an alternate route and distance increase/decrease, both with signing and with information disseminated to the public. (So trail users will know where the detour is and how it will affect their scheduling, water and food needs.) 3
- Do not use the Arizona Trail for motorized access to or within the project area.
- Minimize destruction of vegetation and other natural features within the foreground viewing distance.
- After project work is complete, restore the single-track trail to pre-construction conditions with erosion control measures in place. Restore and re-vegetate within the foreground viewing distance on either side.
- When possible, coordinate project scheduling with neighboring jurisdictions so that multiple sections of the Arizona Trail are not closed at the same time.

Some mitigation of permanent impacts to the recreational and scenic experience could be accomplished by other measures along the Arizona Trail corridor to protect or enhance the trail. This could include corridor protection measures such as obtaining expanded easements for the trail.

2380	Comment Response
2	Direct land use impacts to the trail would be limited to the studied corridor. Visual impacts to recreation users would not extend beyond the studied corridor.
3	The suggested mitigation measures will be considered and included in the final POD as appropriate. The AZT will be informed of the anticipated construction timeframe so they can notify users via the AZT website. Additional public notification could include signage (as specified in the POD) along the affected segment of the trail (along with signage at logical connecting trailheads) and would be placed prior to construction.

2380

4 I concur with implementation of selective mitigation measures #7 and #10 and also encourage the use of selective mitigation measure #13 (Table 2-11) where practicable, and standard mitigation measure # 11 (Table 2-10) where it will decrease background contrast.

Another consideration is the fact that the Arizona Trail, where the Sunzia alternate routes would cross on State land, lies within 15 foot rights-of-way held by the counties. It is illegal for trail users to go outside of the ROW without an Arizona State Land Department recreation permit. An exception should be obtained from ASLD for a designated detour around the project area during the time it would impact the Arizona Trail.

Thank you for considering these comments. Please contact me if you have any questions.
Ph – 520-388-8328; email – laurawhite@fs.fed.us.

Sincerely,

/s/ Laura White

LAURA WHITE
Arizona National Scenic Trail Administrator

2380	Comment Response
4	Since the trail would be spanned, the use of a helicopter for construction may not be needed. Selective mitigation measure 2 would be recommended at the AZT crossing so that temporary access would be screened from the trail.

2392

From: Norm Meader
To: Garcia, Adrian A; Juen, Jesse J; BLM NM SunZia Project
Cc: Tom Hurshman; BLM NM Southline; Suazo, Raymond M; Lauren Azar
Subject: Supplementary Comments: SunZia DEIS Re: Path 47
Date: Wednesday, September 05, 2012 2:13:10 PM
Attachments: CWG Supplementary SunZia DEIS Comments.pdf
WECC 2008 Path 47 Congestion.pdf
2011_WECC_PathReport_Path47.pdf

Submitted Electronically and by Certified Return Receipt U.S. Mail September 5, 2012

Dear Adrian and Mr. Juen:

I am here attaching supplemental comments for the SunZia DEIS. In responding to our request for an extension of the comment period for the DEIS, you, Mr. Juen, stated that the BLM would still consider such comments after the deadline if they were substantive. I believe that these comments are.

The attached comments address the transmission congestion on Path 47 in southern New Mexico. Relieving this congestion is considered a part of SunZia's purpose and need. I did not have time to research this issue during the comment period and thus did not comment on it. I have now read the Department of Energy's 2009 transmission congestion report and several Western Electricity Coordinating Council reports related to this topic and feel informed enough to address it.

DOE's conclusion, incorporated into the SunZia DEIS, is misleading because it fails to distinguish adequately between the various means of assessing congestion. In terms of actual power flow – what determines whether demand can adequately be met – Path 47 is one of the least congested and most reliable paths in the western United States. Nothing currently needs to be done to relief congestion on this path.

What DOE refers to as "congestion" on path 47 is actually related to scheduling. What appears to be happening is that El Paso Electric is reserving much of the capacity on this path for its own use and then is not using this capacity. This is a matter for the Federal Energy Regulatory Commission to address.

I feel that the attached information is very relevant to improving the SunZia DEIS and should be included in a revised DEIS or final EIS. This information is also equally relevant to the Southline Transmission Project, and I am thus copying this to Tom Hurshman, the BLM's Southline manager. This updated information should be incorporated into the Southline Draft Environmental Impact Statement as well.

I strongly encourage the BLM to work with the Department of Energy to obtain the most up-to-date information related to path 47 for both of these projects. For this reason, I am copying this message to Ms. Lauren Azar, Senior Adviser to Energy Secretary Chu, in the hope that she will review this issue and assist you with it. I will follow up separately with the Federal Energy Regulatory Commission to request a review of scheduling-related congestion on path 47.

Sincerely,
Norm "Mick" Meader
Co-Chair, Cascabel Working Group
(520) 323-0092
nmeader@cox.net

Attachments (3)

cc: Mr. Tom Hurshman, BLM Southline Project Manager
Mr. Ray Suazo, Director, Arizona State BLM Office
Ms. Lauren Azar, Senior Adviser to Department of Energy Secretary Steven Chu

2392	Comment Response
	The BLM recognizes that there are varying means to forecast conditions in the transmission grid; however, the data provided in this comment do not dispute the validity of the BLM's purpose and need for the SunZia Southwest Transmission Project. The Draft EIS included a description of congestion associated with transmission Path 47. The following summarizes the statements applicable in response to the CWG's comment. 1) DOE identified Path 47 as a highly congested path; 2) a nominal 170 MW of available firm transmission capacity in the west-to-east direction and 0 MW of available firm transmission capacity in the east-to-west direction (SunZia's predominant planned power flow direction) was identified on transmission lines within Path 47 and beyond; and 3) SWAT analyses illustrate an abundance of interest to interconnect renewable resources in the vicinity of Path 47 and SunZia.

Cascabel Working Group
6590 N. Cascabel Road
Benson, AZ 85602
Submitted by Electronic Mail and Certified Return Receipt U.S. Mail September 5, 2012

Mr. Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, NM 87501
NMSunZiaProject@blm.gov

Dear Adrian:

I would like to submit the following supplementary comments to the SunZia Draft Environmental Impact Statement. Although the deadline for comments has past, I believe that these comments are substantive and potentially important to assessing the need for this project. These comments address the statement in the SunZia DEIS that Path 47 in southern New Mexico is congested and that SunZia will address this issue. I have now had time to review the source of this statement, the Department of Energy's 2009 *National Electric Transmission Congestion Study*[1], as well as documents referenced in this study and elsewhere. This conclusion is very misleading, and the attached report clarifies this.

Review of DOE's report and supporting documents shows that, in reality, Path 47 is one of the least congested and most reliable paths in the western United States, and no additional transmission capacity is needed to meet current power needs in this region. What is occurring is that the utilities and power generators that use Path 47 have scheduled much of the path's transmission capacity for themselves but are not using it. Such a situation needs to be resolved by the Federal Energy Regulatory Commission. A physical power-delivery problem does not currently exist.

In addition, calculations by Public Service Company of New Mexico show that path 47 has sufficient transmission capacity to export approximately ~1,000 MW of power[2]. Currently, development of solar resources in southwestern New Mexico is not limited by insufficient transmission capacity. Rather, these resources are not being developed because potential power generators cannot obtain power purchase agreements from utilities. That is, utility companies are unwilling to buy the power. This heightens the financial risks for a project like SunZia if it intends to support itself by selling transmission capacity to deliver this power.

[1] U.S. Department of Energy, *National Electric Transmission Congestion Study*, December 2009 (hereinafter DOE 2009). Available from http://energy.gov/sites/prod/files/Congestion_Study_2009.pdf. Accessed September 4, 2012.

[2] Public Service Company of New Mexico, Electric Services, Transmission Development and Contracts, *Path 47 Export Rating*, May 5, 2004 (hereinafter PNM 2004). Available from http://www.mrlc.gov/nlcd2006_downloads.php. Accessed September 4, 2012.

To fully update the SunZia DEIS regarding Path 47, the BLM needs to access the Western Electricity Coordinating Council's *2012 Path Rating Catalog*. I strongly urge the BLM to obtain the assistance of the Department of Energy and the Western Electricity Coordinating Council with this to ensure that the information in the DEIS regarding Path 47 is the most up to date possible. This catalog is available for $90 at the following URL: http://www.wecc.biz/library/Pages/Path%20Rating%20Catalog.aspx. I cannot access this catalog without purchasing it and thus cannot provide the most up-to-date information for the BLM to use.

The problem with congestion on Path 47 is not one that I immediately recognized when I read through the DEIS, and I was unable to research it before the SunZia DEIS comment deadline. I believe that the information I provide is substantive and important to incorporate into the SunZia environmental impact statement if the EIS is to be reliable and accurate.

Because this information applies equally to the Southline Project, I am providing this to Tom Hurshman, BLM manager for that project. I am also copying this to Lauren Azar, Senior Adviser to Department of Energy Secretary Steven Chu, who may be able to direct you to the appropriate person to fully update the congestion ratings for Path 47.

Sincerely,

Norm "Mick" Meader

Norm "Mick" Meader
Co-Chair, Cascabel Working Group
(520) 323-0092
nmeader@cox.net

Attachments (3)

cc: Mr. Jesse Juen, Director, BLM New Mexico State Office, jjuen@blm.gov
Mr. Tom Hurshman, BLM Southline Transmission Project Manager, thurshman@blm.gov
Ms. Lauren Azar, Senior Adviser to Department of Energy Secretary Steven Chu, lauren.azar@hq.doe.gov

2399

RIO GRANDE AGRICULTURAL LAND TRUST

Rio Grande Agricultural Land Trust
PO Box 40043
Albuquerque, New Mexico 87196
Phone 505.270.4421
www.rgalt.org

August 20, 2012

SunZia Southwest Transmission Project
c/o EPG, Inc.
4141 N. 32nd Street, Suite 102
Phoenix, AZ 85018

Dear Sirs:

We are writing to provide comments on the route alternatives for SunZia the renewable energy power line project. We represent the Rio Grande Agricultural Land Trust (RGALT), an organization dedicated to preserving irrigated farmland, open space, scenic vistas, and wildlife corridors, including migratory waterfowl habitat, in the middle Rio Grande Valley. Several of our board members live in that portion of middle Rio Grande valley that has been identified in the Draft EIS (DEIS) as the crossing location for the SunZia power line. Based on our knowledge of the area as local farmers and residents, and our agriculture land and wildlife conservation work, we were shocked with the final outcome of this process. We had been tracking the SunZia EIS process previously, and it seemed that as of late 2010 other alternatives were much more viable. As described below, the selected preferred alternative has numerous negatives that appear to have not been considered in the EIS process:

1. The identified Preferred Alternative sits "smack dab in the middle" of the low-altitude migratory avian flyway along the Rio Grande. The Rio Grande Flyway is a critical migratory corridor for greater Sandhill Cranes and Snowgeese (among other species) that stretches from northern Canada (for the Snowgeese) and Grey Lake Idaho (for Sandhill Cranes) southward to Bosque del Apache NWR south of Socorro, and this waterfowl population has been recognized to be negatively impacted in recent years by development and human encroachment. Constructing a power line across this corridor would create yet another threat to the Rio Grande Flyway migrants.

1

2399	Comment Response
1	The DEIS discusses the potential impacts to migratory birds in Section 4.6, 4.17, and Appendix B2.

2399

RIO GRANDE AGRICULTURAL LAND TRUST

Rio Grande Agricultural Land Trust
PO Box 40043
Albuquerque, New Mexico 87196
Phone 505.270.4421
www.rgalt.org

2. The preferred crossing location directly circumvents public-private investments to protect the migratory waterfowl habitat in the middle Rio Grande Valley. RGALT has been working since 2004 with the USFWS Intermountain West Joint Venture group using North American Wetlands Conservation Act (NAWCA[1]) grant funds to preserve habitat, including working farms in the middle Rio Grande Valley down to Bosque del Apache NWR. The proposed crossing just north of Socorro lies in close proximity if not passing directly through 4 of NAWCA Conservation Easement projects. Well over a million of state and federal dollars have been invested in these properties to protect and restore the native riparian area of threatened bird species.

3. The preferred alternative cuts through the area designated for protection as part of the Secretary of Interior's Middle Rio Grande Conservation Initiative[2]. On January 5, 2012, Secretary of the Interior Ken Salazar visited Albuquerque and met with local community leaders to discuss strengthening existing partnership efforts in the Middle Rio Grande region (the 180-mile stretch of river between Cochiti and Elephant Butte reservoirs). Secretary Salazar challenged attendees to develop a partner-driven plan for the Middle Rio Grande that would support the Department of Interior's America's Great Outdoors (AGO) initiative and build off the existing successes in New Mexico's middle Rio Grande communities, to support existing efforts to address water management and endangered species concerns and to add an additional focus of conservation, education, and recreation opportunities as well.

[1] http://www.fws.gov/birdhabitat/Grants/NAWCA/index.shtm
[2] http://www.mrgesa.com/Default.aspx?tabid=488

2399	Comment Response
2	A discussion of conservation investments along the Rio Grande and elsewhere in the project study corridor, which includes USFWS identified NAWCA grants have been added to Section 3.10.1 and 3.10.3 of the FEIS.

2399

RIO GRANDE AGRICULTURAL LAND TRUST

Rio Grande Agricultural Land Trust
PO Box 40043
Albuquerque, New Mexico 87196
Phone 505.270.4421
www.rgalt.org

3 4. The preferred alternative Rio Grande crossing sits just north of the city of Socorro, one of the major population centers between Albuquerque and Las Cruces, and would negative impact the market value of hundreds of private properties that lie within the view shed of this power line crossing.

4 5. The preferred alternative crosses Wilderness Study Areas and the Johnson Hill ("Gordy's Hill") Recreation Area just east of the Rio Grande.

5 As an alternative, we strongly recommend that you select the original (2008) "Proposed Route" across New Mexico as "Preferred Alternative" for the eastern (New Mexico) portion of the power line. We have reviewed the route alternatives map and specifically recommend Route numbers A181 and A300 (or alternately, A250) as the Proposed Route for the SunZia DEIS:

- The route cuts diagonally west-southwest from the new sub-station north of Carrizozo, past the northwest corner of White Sands Missile Range (WSMR) property just south of Highway 380, where it turns immediately south, following the WSMR western boundary to the point where the line must head west in order to cross the Rio Grande just south of Arrey, NM.

There are several reasons that this route makes the most sense:
1. It passes through unpopulated federal lands and avoids populated agricultural and scenic areas.
2. It avoids all National Wildlife Refuges, Wilderness Study Areas, existing Wilderness Areas, and Areas of Critical Environmental Concern. The current preferred alternative in the middle Rio Grande Valley north of Socorro (from April 2010) makes no sense, as it considers news routes that

2399	Comment Response
3	Section 4.9.3.1 of the DEIS describes high to moderate visual impacts for residential viewers near the Rio Grande crossing along Link E180 (Subroute 1A1), also illustrated on Map 9-3E of the Map Volume. Text has been added to the FEIS describing residential viewer impacts along Link E180 (Section 4.9.3.1). *"Impacts to residences near Socorro are anticipated to be high along Link E180 where direct views of the project within ½ mile would occur."* .As indicated in Section 4.13.4.5 of the DEIS studies have been reviewed regarding the effects of HVTLs on property values. These studies found that often no effect to property values occur based on the presence of HVTLs; in studies where effects were found, the effects generally resulted in a 10 percent or smaller reduction in property value.
4	The preferred alternative does not cross the Veranito WSA, or any other WSA because rights-of-way are excluded from WSAs. It does, however, cross the northern edge of the Johnson Hill recreation area in two places, adjacent to an existing road.
5	Section 2.3.3.1 of the DEIS describes alternative transmission line routes that were considered and eliminated. The alternative routes located south of the Bosque or north of the Sevilleta National Wildlife Refuge were eliminated because they were not feasible. The southern routes would cross either wilderness study areas or military lands that were excluded for new rights-of-way. The northern routes were excluded because they would cross wilderness study areas or BLM exclusion areas.

2399

RIO GRANDE AGRICULTURAL LAND TRUST

Rio Grande Agricultural Land Trust
PO Box 40043
Albuquerque, New Mexico 87196
Phone 505.270.4421
www.rgalt.org

include more private lands and rural population centers, and more of the Rio Grande waterfowl migratory flyway.
3. It avoids the low-altitude migratory avian "Rio Grande Flyway" described above. Constructing a powerline across this corridor would create yet another threat to the Rio Grande Flyway migrants.
4. It avoids private Conservation Easements in the middle Rio Grande Valley north of Bosque del Apache. In addition to working on habitat preservation in the middle Rio Grande Valley as described above, RGALT has been working with private landowners, the USDA Farmland Protection Program[3], and the State of New Mexico[4] to preserve critical farmlands in this area. All of the alternative routes that cross the Rio Grande north of Bosque del Apache will negatively impact these government – private collaborations to preserve irrigated farmland and wildlife habitat.
5. This eastern-end route is shortest, causing the least land disturbance.

It is our understanding that the military was ready to accept the proximity of the power line following outside the WSMR west boundary. Thus, let us utilize this opportunity and option to put the power line in an area that causes the least disturbance to private land and critical wildlife habitat and flyways, and select the Route numbers A181 and A300 (or alternately, A250) as the Proposed Route for the SunZia powerline.

Sincerely.

Cecilia Rosacker McCord

Cecilia Rosacker McCord
Executive Director, RGALT

[3] http://www.nrcs.usda.gov/programs/frpp/
[4] http://www.rgalt.org/pdfs/RGALT%20Summer07.pdf

2399	Comment Response
	See following page(s)

2401

Cara Lonardo

From: Philip Hedrick <PHILIP.HEDRICK@asu.edu>
Sent: Wednesday, August 22, 2012 4:41 PM
To: feedback
Subject: FYI, Comments on SunZia from Aravaipa Property Owners Assoc.
Attachments: SunZia letter 8-22-2012.doc

Dear Secretary Salazar,

Below and attached are our comments to BLM about the SunZia EIS.

Sincerely,
Betty Wagner, President
Aravaipa Property Owners Association

ARAVAIPA PROPERTY OWNERS ASSOCIATION
c/o Betty Wagner, President
90890 East Aravaipa Road
Winkelman, AZ 85292
(betty@wagnerpartnership.com)

Bureau of Land
Management A
ugust 22, 2012
Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
P.O. Box 27115
Santa Fe, NM 87502-0115
Email: NMSunZiaProject@blm.gov

Re: Comments on Draft Environmental Impact Statement for SunZia

Dear Mr. Garcia:

1 We, the Aravaipa Property Owners Association (APOA), are writing you to express our strong and unanimous **opposition to the BLM preferred alternative along the west side of the San Pedro River**. As a more environmentally conscious alternative, we support the proposed Tucson routes or other Tucson routes, which could be developed, were SunZia to share infrastructure corridors with Tucson Electric Power (TEP). Another alternative is the Southline Project which is currently being permitted and accomplishes many of the same objectives. In addition, we have the following questions.

2 (1) The San Pedro River corridor has been extensively used to provide **mitigation** for projects elsewhere. Why would BLM support a large transmission line project in the same area these previous mitigation properties are located?

3 (2) USFWS, also part of the Department of Interior is proposing a large **USFWS wildlife refuge**, and other conservation initiatives, along the San Pedro River. Why would BLM support a large transmission line project in the same area as this refuge?

4 (3) We applaud the encouragement of alternative energy by BLM. However, the use of these lines for renewable energy is highly speculative and there is no guarantee that these lines won't be used primarily for **non-renewable**

1

2401	Comment Response
1	Comment noted
2	Known biological resource conservation areas and agency identified biological resource areas have been identified in sections 3.6.7 and 3.6.8 of the DEIS. The FEIS has been modified to further identify conservation investments located along the Rio Grande and San Pedro River valley (Section 3.10.1, 3.10.3).
3	The study area for the proposed National Wildlife Refuge (or Collaborative Conservation Initiative) is 4 miles wide, centered on the San Pedro River. The proposed refuge would not necessarily include all lands within that study area, and the USFWS continues to identify potential participants. Thus, the potential for the Project to affect that planning process exists, although no direct conflicts have been identified to date. The Project (BLM preferred alternative) would cross the southernmost one-half mile of the refuge study area, and would also cross a small portion of the western edge of the study area in a single location near Redington. Other alternatives to the north would potentially have a greater impact on the proposed refuge.
4	It is the proponent's intent to increase transmission capacity and co-locate transmission facilities in areas of potential renewable energy development; the BLM is required to respond to the proponent's application for use of BLM administered lands for a new utility right-of-way. The Final EIS discloses environmental impacts to resources throughout the study corridors that could result from the construction and operation of the Project. The BLM's decision will be to grant, grant with conditions or deny the application for new right-of-way. The Record of Decision will decide which alternative to select, any mitigation requirements, and the terms, conditions, and stipulations of the grant.

2401

4 **energy**. Why would BLM support a project that would forever alter the San Pedro River corridor, the last undammed river in Arizona and important home to many rare bird and other species, to potentially provide transmission lines for non-renewable energy?

5 We again want to reiterate our strong and unanimous **opposition to the Aravaipa transmission line route** proposed by BLM and SunZia (Alternate Transmission Line Route sections C130b, C170, C178, C173, C592, and C595 on Figure M 1-1W). We state this opposition again here because we understand that SunZia is advocating this route. The Aravaipa route cuts through more than 20 miles of the Aravaipa Canyon watershed, crosses Aravaipa Creek on the east side of the Canyon, and bisects the Aravaipa Canyon Wilderness administered by the Bureau of Land Management to the north and Galiuro Wilderness in the Coronado National Forest to the south.

6 Aravaipa Creek is a perennial creek in the Sonoran Desert that flows through the wilderness and the area in which the APOA members live. Aravaipa Creek is home to two federally threatened fish species, the spikedace and the loach minnow, and is the only watercourse in Arizona still to have all its' native fish species. Other species of special concern in the creek and nearby are four other fishes (longfin dace, roundtail chub, desert sucker, and Sonoran sucker), three bird species (yellow-billed cuckoo, gray hawk, and black hawk), the desert tortoise, and the desert bighorn sheep. In other words, Aravaipa Canyon and its watershed constitute a unique environment and an ecologically sensitive area. In fact, the Aravaipa Canyon Wilderness has been called the "crown jewel" of the wilderness areas administrated by BLM.

Protection of the special aspects of this environment is a very high priority for APOA and the Aravaipa transmission line route would threaten the Aravaipa Canyon Wilderness in a number of ways.

7 (1) The Aravaipa route would block the road-less **wildlife migration corridor** between the Aravaipa Canyon Wilderness and the Galiuro Wilderness in the Coronado National Forest, one of the last of this magnitude in the southwest. The importance of this 100-mile long corridor has not been taken into account because for some unknown reason the study area stops just north of the Galiuros and does not include the road-less areas to the north. This is an essential corridor for many animals, such as desert bighorn sheep, black bears, mountain lions, and mule deer, and it connects these two ecologically pristine areas. Overall, approximately 50 miles of the proposed route would pass through or within one mile of areas determined to be environmentally sensitive, the largest number of miles in this category of all the transmission line routes, proposed or alternative. More importantly, once the transmission lines are in place with their attendant maintenance access, they will act like a "gateway" to further access, first by off-road vehicles, then to more development and degradation.

8 (2) As the result of the unique aspects and large area that the Aravaipa route for the transmission lines would bisect (the second largest in Arizona-New Mexico), it seems unlikely that appropriate **mitigation** for the negative environmental effects that would be caused by the transmission lines is possible.

(3) The Aravaipa route would cross or closely parallel Aravaipa Creek on the east side of the wilderness and cross the Aravaipa Creek watershed for much of its length, potentially **destroying and altering habitat** important to native species.

(4) The Aravaipa route includes more than 15 miles of mountainous terrain, making **construction difficult**, unduly expensive, environmentally degrading, and very undesirable for maintenance.

(5) The Aravaipa route bisects the area for which a number of agencies have developed a management plan utilizing the continued use of **prescribed and naturally-occurring fire**. Not only would transmission lines fragment this area, it would greatly limit the use of fire as a management tool, thereby increasing the chance of catastrophic wildfires.

Again, we state our strong opposition to the proposed Aravaipa route, because of the great negative impact it would have on this ecologically sensitive area. As a result, we again strongly urge you to remove this route from any further consideration as a route for the transmission line.

Sincerely,

Betty Wagner
President, Aravaipa Property Owners Association (APOA)

2

2401	Comment Response
5	Comment noted
6	Comment noted. These resources are discussed in the DEIS (Section 3.6.7, 3.6.8).
7	1. The Project would not block the use of this area to wildlife movement. No information indicates that operation of transmission lines in the Southwest substantially affects wildlife movement, although temporary disturbance would occur during construction and maintenance as acknowledged in the DEIS, as is the potential for ongoing recreational traffic (Section 4.6.3.1, throughout Section 4.6). However, Subroute 4A/B is acknowledged to have the potential for indirect or cumulative impacts to wildlife higher than other subroutes, through the potential for use of access roads by recreational traffic. The extent of these effects would depend on mitigation measures employed to reduce unauthorized use, as specified by the appropriate landowner.
8	2. See response to comment 7 (1). Effects to this area would be minimized with successful closure of access roads and helicopter-assisted construction and maintenance. 3. Subroute 4A/B would cross Aravaipa Creek several miles upstream from perennial water, and would then travel uphill away from Aravaipa Creek for approximately 9 miles before leaving the Aravaipa watershed. The DEIS (Section 4.6.5.4) discusses the potential effects of this subroute to wildlife. 4. The DEIS (Section 4.6.5.4) acknowledges the terrain and lack of access in this area. 5. The DEIS discusses the potential for effects on fire management planning and wildland fire use in sections 4.7 and 4.17.7. However, the location of the route is not within heavily forested vegetation communities that would support a catastrophic wildfire.

2407

Archaeology Southwest Exploring and protecting the places of our past

National Trust for Historic Preservation
Save the past. Enrich the future.

August 22, 2012

Mr. Adrian Garcia, BLM Project Manager
SunZia Southwest Transmission Project
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, NM 87502-0115

Re: Comments on the SunZia Southwest Transmission Project Draft Environmental Impact Statement

Dear Mr. Garcia:

Archaeology Southwest[1] and the National Trust for Historic Preservation ("National Trust") submit the following comments on the SunZia Southwest Transmission Project Draft Environmental Impact Statement ("DEIS"). These comments build on, and amplify, our scoping comments of August 27, 2009, November 25, 2009 and June 6, 2010 and our informal communications with Bureau of Land Management (BLM) lead archaeologist, Jane Childress and BLM project consultant EPG. We appreciate the opportunity to provide this input.

GENERAL COMMENTS:

1

1. ***Non-Compliance with Section 106 of the National Historic Preservation Act.*** As a preliminary matter, Archaeology Southwest and the National Trust again draw your attention to the BLM's failure to initiate formal Section 106 consultation in a timely manner. While we appreciate your letter of August 8, 2011, acknowledging our status as consulting parties for the purposes of meeting your responsibilities under the National Historic Preservation Act, we have not had the opportunity for input and discussion that the Section 106 process is intended to provide. Neither the Arizona nor New Mexico State Historic Preservation Offices have been given the opportunity to provide specific input to the identification of alternatives, selection of the draft preferred alternative, or the analysis of impacts to historic resources.

[1] On January 1, 2012, the Center for Desert Archaeology changed its corporate name to Archaeology Southwest. No other aspect of the organization changed apart from the corporate name. Any previous correspondence submitted by the Center for Desert Archaeology should be considered information provided by Archaeology Southwest

300 N. Ash Alley Tucson, AZ 85701
phone 520-882-8946 fax 520-882-0948
email info@archaeologysouthwest.org
www.archaeologysouthwest.org
William H. Doelle, Ph.D.
President and CEO

2407	Comment Response
1	The BLM has complied and continues to comply with Section 106 of the National Historic Preservation Act. Initiation of the Section 106 process is at the identification of the undertaking. IM's cited by Archaeology Southwest would not have been in effect from 2009 through portions of 2012. Nevertheless, the National PA (IM 2012-061) does specify that the ACHP may voluntarily enter into the Section 106 process any time that it wishes.

2407

1

We were very pleased that BLM recently issued an Instructional Memorandum (IM) that expressly describes the process to be followed when undertaking a project that requires compliance with both NEPA and NHPA (IM No. 2012-108) The IM includes a helpful chart (attached to this letter) that describes what steps should be taken at various points in the NEPA and NHPA processes to assure coordinated and complementary action. What we find puzzling is that in the case of the Sun Zia project, this useful guidance has been completely disregarded. For example, the chart accompanying the IM shows that the appropriate time to initiate NHPA is *prior to* beginning NEPA scoping, certainly *not after* a draft NEPA document has already been released. In other words, according to BLM's own guidance, BLM should have initiated Section 106 consultation for this project ***three years ago,*** in 2009. Furthermore, according to the chart, at the point in the NEPA process where a draft EIS has already been issued (the current status of Sun Zia), a draft Section 106 agreement should already be completed and be circulated for comments. Instead, BLM continues to refuse to initiate Section 106 consultation, in direct violation of BLM's own explicit guidance on the matter.

The 1997 Arizona BLM Protocol agreement states that, "[t]he BLM will request the SHPO's review of the following kinds of undertakings: . . . [n]on-routine interstate and/or interagency projects or programs, as determined by either the BLM or the SHPO. Examples are interstate pipelines or transmission lines which involve multiple jurisdictions and require the preparation of Environmental Impact Statements." Protocol at 4. Since this seems to describe the Sun Zia project, it is clear that BLM should have already contacted the SHPOs about this project to seek their review. Furthermore, BLM recently adopted a new Nationwide Programmatic Agreement (PA) which reinforces the importance of NHPA compliance early in the process of project planning. PA at 4.(b)

We are also concerned that waiting until a final alternative is selected before beginning compliance with Section 106 will foreclose the opportunity of the Advisory Council on Historic Preservation to provide meaningful comments on the undertaking. 36 C.F.R. §§ 800.9(b), 800.16(j). Under Section 106 of the NHPA, federal agencies have an obligation to develop and evaluate measures to "avoid, minimize or mitigate" the adverse effects of their actions before finalizing such actions. 16 U.S.C. § 470f; 36 C.F.R. § 800.1(c). In spite of this obligation, BLM has stated that it will select a Sun Zia alternative before commencing NHPA compliance, effectively removing from consideration other siting alternatives that could "avoid, minimize or mitigate" adverse effects on historic properties. Complying with Section 106 *now* will ensure that BLM does not select a project alternative before Section 106 consultation, which would impermissibly foreclose alternatives, such as selecting a different route or route segments, to "avoid, minimize or mitigate" the adverse effects of the project.

Finally, we find it difficult to understand the "flip-flopping" that BLM has done on the question of when it intends to actually start Section 106 consultation. In correspondence dated June 3, 2010, BLM stated, "[o]nce the preferred and alternative routes have been

2407	Comment Response
	See following page(s)

2407

selected, the Section 106 process will be initiated. . . This will take place **well before** the publication of a Draft [EIS]." (emphasis added). Then, in an August 2011 letter, BLM changed its mind and stated, "[a]fter the Draft [EIS] is published, we will formally initiate Section 106 consultation and the draft PA will be sent to consulting parties for review." (emphasis added). The comment period on the draft closes on August 22, 2012 and consultation has yet to begin. We recommend that the formal Sec 106 consultation process begin immediately, and that the NEPA review process be suspended until the Section 106 review has caught up to the point of developing a Draft PA, in conformance with BLM's own policies.

1

SPECIFIC COMMENTS:

1. ***Project Purpose and Need.*** Archaeology Southwest and the National Trust fully support efforts by the BLM to expand our nation's renewable energy portfolio, and we recognize that our public lands will play an important role in the development and transmission of these resources. Nonetheless, we remain concerned about the purpose and need for this project.

2

Originally, this project was presented to the public as a project designed to transmit wind power, a renewable source of energy, from central New Mexico to markets in Arizona and California. All of the initial scoping meetings were focused, almost exclusively, on this renewable energy source and SunZia's intent to utilize it. It is also reflected in the Supplementary Information in the 2009 Notice of Intent to prepare an EIS: *"SunZia's proposal is to transport electricity generated by power generation resources, including* ***primarily*** *renewable resources, to western power markets and load centers. The SunZia project would enable the development of renewable energy resources, including wind, solar, and geothermal generation, by creating access to the interState power grid in the Southwest and providing increased transfer capacity".* There was no ambiguity in our minds that this project would assist with meeting our Nation's ambitious renewable energy use goals.

Presently, the Notice of Availability for the DEIS states: *"The Applicant's objective for the Project is to improve the reliability and efficiency of the western electrical grid and aid in delivering electrical energy throughout the region."* With no mention of renewable energy transmission, this is a marked shift in emphasis as it relates to project purpose. Despite the shift in emphasis, public meetings on the DEIS continue to emphasize the renewable energy elements of the project. This continues to mislead the general public and because the public meetings did not provide any opportunity to hear public comments, there was no opportunity for attendees to provide an alternative perspective or to publicly supplement the information provided by the BLM consultant. Furthermore, the applicant's objectives outlined in Chapter 1.4 focus significantly on renewable energy needs and in doing so misrepresent the demand.

The market demand information presented in Table 1-1 is noteworthy in what it fails to disclose; namely what portion of the demand is currently met from existing projects and what is anticipated from projects that are approved and for whom transmission capacity is not an issue. Currently in

2407	Comment Response
2	As stated in the DEIS (p. 1-7), "Federal Energy Regulatory Commission (FERC, or Commission) Order 888 provides that owners of transmission facilities make such services available on the open market. Transmission facility services are to be provided on a nondiscriminatory, comparable basis to others seeking similar services, including ancillary services. . ." and reiterated on p 4-274 of the DEIS, "As previously discussed, FERC Order 888 compels transmission owners to provide open access to its facilities without discrimination, including discrimination as to type of generation requesting interconnection and transmission service." Although FERC rules do not allow for discriminatory preference among generation subscribers to a transmission line, "it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation" (see DEIS, p.1-8). Table 1-1, Renewable Energy and Transmission Capacity Needed to Meet RPS, and Table 1-2, Summary of Generation Interconnection Requests to Existing Transmission Owners within the Project Area, illustrate, respectively, a need for additional renewable generation sources and a need for transmission capacity.

2407

California 20% of all electricity is met from renewable sources. A table (see attached) published on the California Public Utilities Commission website (http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm) indicates that projects online, under development, or pending approval, are providing, or will provide, a minimum of 10,000 megawatts and potentially as much as 30,000 megawatts of electricity. We would also point out that the Arizona NetShort calculation fails to consider that the Renewable Portfolio Standard requires that 33% of the 15% 2025 goal, be met through the distributive systems. As such the NetShort calculation as it relates to SunZia is actually 10.5% by 2025. We request that the final EIS provide for a more accurate market demand calculation for each state (CA, NV, AZ and NM) that reflects what portion of the demand is currently met or anticipated to be met without the SunZia project.

2

On a related note, we also draw attention to the BLM and the Western Area Power Administration Notice of Intent to prepare an EIS for the proposed Southline Transmission Line Project in New Mexico and Arizona (77 Federal Register No. 65). The Southline project proposes to construct new facilities that will provide for a 1,500 megawatt increase in transmission capacity in Segment A and an upgrade of existing facilities to provide for a 1,000 megawatt increase in transmission capacity in Segment B. In light of the revised project purpose for SunZia and the aforementioned NOI for Southline, there appears to be substantial similarity in project purposes. From Deming, New Mexico to the San Pedro River basin, the proposed alignments for SunZia and Southline are in close physical proximity. Given the existence of these two proposals, both of which are permitted by BLM, under review and proposed for construction in a similar time period, appear to have similar project purposes, are located in close physical proximity to each other over a significant portion of their respective project areas, impact natural and cultural resources in a very similar if not identical manner, and engage identical stakeholders, we strongly recommend that a supplemental DEIS be prepared that includes the Southline Transmission Line Project as a SunZia project alternative.

Lastly, we would be remiss in not mentioning that the first generation SunZia transmission line project was a single 500-kV line going east and west from the Bowie power plant. The line to the west was proposed through the Winchester substation and down the San Pedro Valley to reach southeast Phoenix. The eastern line was to end near the Luna substation at Deming, New Mexico. Tom Wray, the primary representative for SunZia, also played a key role in development efforts for the Southwestern Power Group's Bowie power plant project. The second generation vision for the project envisions a renewable energy component that, as we state above, remains ambiguous at best. Given the relationship between investors in the Bowie power plant and the investors in the SunZia project, we recommend that the relationship between the SunZia project and the natural gas generated power from the Bowie plant be more fully represented in the context of the project purpose and need.

2. ***Failure of the DEIS to consider all relevant information in assessing impacts to historic resources.***

3

In our letter of June 10, 2010, we requested that you consider Pima County's Priority Cultural Resources areas when evaluating impacts of various alternatives. The information developed by Pima County on Priority Cultural Resource Areas was developed through an exhaustive data analysis based on AZSITE records and the expert opinion of notable area

2407	Comment Response
3	We appreciate the information that was provided by Archaeology Southwest as part of the Class I data collection efforts. The Sonoran Desert Conservation Plan is available online and provides overviews of priority conservation areas including cultural resource sites. As your letter notes, the "Pima County" cultural areas represent a subset of information available from AZSITE that have greater spatial accuracy than provided in the Sonoran Desert Conservation Plan. Analyses in the DEIS included cultural site records in AZSITE within Pima County. Priority conservation areas identified by Archaeology Southwest and provided to EPG are included in the cultural overview maps; we admit these are not discussed in detail in the DEIS, due to the opaque process used to identify these areas (their designation is apparently a combination of known site type/condition/age and landowner interest in conservation easements). Unfortunately, an original report for Archaeology Southwest's San Pedro surveys has not been available for our review.

archaeologists and tribal members and employees. The Pima County planning effort identified the most sensitive areas in Pima County with respect to significant prehistoric features on the landscape. In some instances they represent prehistoric cultural landscapes with the full complement of site types associated with Native Americans, particularly within the period of AD450 and 1450. It appears based on the list provided on page 3-138, that Pima County was not consulted in any capacity as it pertains to cultural resources despite our specific reference to the significant information they had compiled as part of their County planning efforts associated with the Sonoran Desert Conservation Plan, an award winning planning effort. Under Section 106, local governments have a right to participate as consulting parties. 36 C.F.R. 800.2(c)(3).

We appreciate that the information provided to the BLM consultants by Archaeology Southwest concerning priority areas in Pinal County and the San Pedro River basin were referenced in the DEIS (Page 3-138 and Figure M 08-1W). Nonetheless, there is no subsequent analysis or associated narrative on how this information was considered for purposes of the alternatives assessment and determination of impacts to historic properties. This provides further indication that the NEPA process has not served, and cannot serve, the requirements of the Section 106 consultation process. We have attached a recent final report that includes all of the Prehistoric Priority Cultural Resource Areas in Pinal County. Similar to Pima County this information was distilled from thousands of AZSITE records and the expert opinion of notable local archaeologists and tribal representative and members. We strongly recommend that this information, previously submitted information for the entire San Pedro River basin and information provided by Pima County be considered as part of the Final EIS and Section 106 consultation process.

3. ***Inadequate delineation of the area of potential effect for Class I records review.***

4a

The Class I records review initially considered data within 1 mile of the edge of the 1000 foot corridor. However because of the "enormous amount of data" the review focused only on data found within a zone defined as ¼ mile in width calculated from the 1000 foot corridor center line. The decision to limit the focus of inquiry should be determined from an assessment of the "area of potential effects" as opposed to the size of the dataset. An area of potential effects (APE) will be identified in the Section 106 process. In comments we submitted previously, we raised the issue of indirect impacts associated with motorized access routes constructed to support transmission line construction and maintenance[2]. In short, certain sites such as large habitation areas, petroglyph or pictograph sites, rock shelters and caves as well other sites with above-ground historic structures, are vulnerable to vandalism including looting. Such activities are related, in part, to site access which is facilitated by routes open to motorized use. Facilitated access to areas that would

[2] The regulations are clear that the area of potential effect is the "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties..." (36 CFR 800.16 (d)

2407	Comment Response
4a	"Area of Potential Effects" or APE is a Section 106 concept, not a NEPA concept, and its boundaries are being determined through the Section 106 process in consultation, not the NEPA process.

otherwise require traveling longer distances off road could occur during construction or afterwards in the event that these routes remain in existence for maintenance purposes.

A variety of assessments and studies which are included for your reference clearly address this problem. Schroeder (2010) provides a good overview of the issue on pages 15-16 of her Cultural Resources Specialist Report prepared to support the Travel Management Environmental Impact Statement for the Apache-Sitgreaves National Forests. References that provide specific information include: Hedquist and Ellison, 2010; Plog et al. 1978 pp. 28; Nickens et. al 1981 pp. 67-74; Sullivan et. al 2002; and Spangler 2006 pp. 21-25) are included herein with these comments. These studies indicate that for sites vulnerable to vandalism, the frequency of damage increases when a site is within 200m–750m of a road open to motorized travel. Because access routes are likely to fall anywhere within the 1000 feet corridor, the area subject to indirect impact should be measured from the edge of the 1000 foot corridor and is best estimated conservatively to be ½ mile from the edges of the corridor. We recommend that this zone be considered the area of potential effects for purposes of Section 106 compliance and also for the NEPA alternatives analysis. Interestingly, ½ mile is the distance used on either side of the corridor edge for purposes of the Class II inventory work, which we support.

4b

4. **Inappropriate identification of the preferred alternative as the federal undertaking.**

The DEIS at page 3-143 indicates that for "this Project, in which several alternatives were considered, the area of potential effects has been defined with the selection of a preferred alternative."As stated above, this decision forecloses the opportunity of the Advisory Council on Historic Preservation to provide meaningful comments on alternatives that can best avoid, minimize or mitigate impact to historic resources. As stated earlier, the BLM has failed to initiate formal Section 106 consultation in direct contravention of BLM IM 2012-108 and 36 C.F.R. § 800.1(c) (*"[t]he agency official shall ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking."*) We strongly recommend that formal consultation be initiated immediately in accordance with BLM's internal guidelines and Section 106 regulations. Any use of the NEPA process to substitute for elements of the consultation process would have required prior notification of the ACHP and the SHPO in accordance with the Section 106 regulations. 36 C.F.R. § 800.8(c).

5

5. **Insufficient impact assessment methodology**

The DEIS Page 4-108 identifies "[i]ndirect and permanent disturbances due to changes in public accessibility and visual intrusion" as one of four types of impacts. As previously discussed and in the studies included with our comments, these impacts often extend for a distance of ½ mile from the motorized route. Notwithstanding our earlier comments calling attention to your incorrect identification of the project undertaking, the impact

6

2407	Comment Response
4b	New roads in forested areas have a different dynamic than in non-forested areas that were amenable to off-road travel prior to development. The vulnerability of a site to vandalism/disturbance depends not only on distance from a road, but also on factors such as size, isolation from public view, and visibility (ability of non-archaeological public to recognize the material as a site). The Programmatic Agreement in preparation for the project under Section 106 identifies measures for addressing potential indirect and cumulative adverse effects to such vulnerable sites.
5	Section 3.8.1.3 of the FEIS has been amended to read: "The Areas of Potential Effects can be formally defined with the issuance of a ROD identifying a preferred route." Well-defined Areas of Potential Effects for direct, indirect and cumulative effects are currently being developed through consultation with the Section 106 consulting parties and specified in the Programmatic Agreement in preparation for the project. Section 106 consultation was initiated with the establishment of the undertaking, as well as the finding of adverse effect. The adverse effect notification and invitation to participate in consultation was sent to the ACHP on July 13, 2009. On August 14, 2012, additional information was provided to the ACHP as required under 36 CFR 800.11. "Formal" consultation was not specified in the referenced section (3-143), and was only inadvertently included on 5-10. Consultation has been ongoing since the establishment of the undertaking in 2009, when consulting parties, including Archaeology Southwest, were identified.
6	Well-defined Areas of Potential Effects for direct, indirect and cumulative effects are currently being developed through consultation with the Section 106 consulting parties and specified in the Programmatic Agreement in preparation for the project.

assessment methodology presently is restricted to a potential corridor width of 600 feet. Our first concern relates to the decision to further restrict the geographic area under consideration to 600 feet despite the BLM's earlier statement that the corridor could be up to 1000 feet in width and the Right of Way application is designed to provide for that additional width if needed. The limited focus area for the direct project impacts is not explained. We recommend that the final impact assessment for purposes of NEPA and Section 106 compliance evaluate direct impacts within the 1000' corridor width. In addition, the impact assessment methodology fails to consider the larger geographic zone subject to indirect impacts that we discuss above. In essence one is left to conclude that any sites outside a 600 area centered on the corridor centerline would not be impacted by the project. We recommend that the Impact Assessment Methodology include an indirect impact zone as described more fully in Section 3 above.

6. **Misleading information on the status of Section 106 consultation.**

7

We strongly object to the statement made on pages 3-145 and 5-10 of the DEIS that formal Section 106 consultation has begun. This is not the case, as verified in phone and email conversations with Arizona and New Mexico State Historic Preservation Offices and the Advisory Council for Historic Preservation. We strongly recommend that Section 106 consultation begin immediately. Because BLM did not undertake appropriate notification, clarifying the relationship between the NEPA process and Section 106 public involvement requirements, commencing the required Section 106 process is necessary and long overdue.

REFERENCES

Saul L. Hedquist and Leigh Anne Ellison. 2010. *Condition and Damage Assessment of 96 Previously Recorded Archaeological Sites Located on the Tonto National Forest in Gila, Maricopa, Pinal, and Yavapai Counties, Arizona.* Unpubl. Report. Center for Desert Archaeology, Tucson, Arizona.

Nickens, Paul R., Signa L. Larralde, Gordon C. Tucker, Jr. 1981. A Survey of Vandalism to Archaeological Resources in Southwestern Colorado. Bureau of Land Management Colorado Cultural Resources Series 11.

Plog, Fred. 1978. An Analytical Method to Cultural Resource Management: Little Colorado Planning Unit-Introduction. Arizona State University Anthropological Research Papers No 13 and USDA Forest Service Report 19.

Schroeder, Melissa R. 2010. Cultural Resources Specialist Report for the Travel Management Environmental Impact Statement. USDA Southwest Forest Service Region, Apache-Sitgreaves National Forests. USDA Southwestern Forest Service.

2407	Comment Response
7	Please see response to Comment No. 1.

2407

Spangler, Jerry D., Shannon Arnold, and Joel Boomgarden. 2006. Chasing Ghosts. An Analysis of Vandalism and Site Degradation in Range Creek Canyon, Utah. Unpubl. Report.

Sullivan, Alan P., III; Uphus, Patrick M.; Roos, Christopher I.; Mink, Philip B., II. 2002. Inadvertent Vandalism - The Hidden Challenge for Heritage Resource Management. Cultural Resource Management. Vol 25 (2).

We appreciate the opportunity to provide these comments and look forward to your response to our input.

Sincerely,

William H. Doelle
CEO and President
Archaeology Southwest

Amy Cole
Senior Field Officer and Attorney
National Trust for Historic Preservation

Attachments:
- Attachment 1 from BLM IM No. 2012-108 (Apr. 27, 2012)
- Final Pinal County Priority Cultural Resource Area Report
- California Public Utility Commission RPS Table
- Reports and select pages from reports regarding vandalism of archaeological sites.

cc: Richard Hanes, Div. Chief, Cultural & Paleontological Resources & Tribal Consultation, Washington Office BLM
Kate Winthrop, Energy & Landscapes Coordinator, Washington Office BLM
Robin Hawks, Council on Environmental Quality
Jesse Juen, BLM State Director, New Mexico
Nancy Brown, BLM Liaison, Advisory Council on Historic Preservation
Caroline Hall, Advisory Council on Historic Preservation
Reid Nelson, Advisory Council on Historic Preservation
Jan Biella, New Mexico State Historic Preservation Officer (Acting)
James W. Garrison, Arizona State Historic Preservation Officer

2407	Comment Response
	See following page(s)

2412

Cascabel Working Group
6590 N. Cascabel Road
Benson, AZ 85602
Submitted by Electronic Mail and Federal Express August 20, 2012

Mr. Adrian Garcia, Project Manager
SunZia Southwest Transmission Project
Bureau of Land Management
New Mexico State Office
301 Dinosaur Trail
Santa Fe, NM 87508
NMSunZiaProject@blm.gov

Dear Adrian:

The Casacabel Working Group (CWG) would like to provide the following assessment of the Draft Environmental Impact Statement for the SunZia Southwest Transmission Project. This document includes several attachments in support of our recommendations.

The mission of the Cascabel Working Group is to educate others about the Middle San Pedro River Valley and to advocate for the protection of the valley's environment, culture and traditional land uses. The CWG represents a supermajority of valley residents and was formed specifically to represent them. We work closely with the Natural Resource Conservation Districts in the Middle and Lower San Pedro Valley, which represent predominantly the valley's ranchers. We also work collaboratively with a broad spectrum of environmental and public interest groups predominantly in southern Arizona.

Recommendation: The *No Action* Alternative

1

We strongly recommend that the "No Action" alternative is the only acceptable decision for this project. This recommendation is based upon the following:

1. The magnitude of the environmental values that must be sacrificed to complete this project
2. The sound and compelling alternatives that exist to achieve its stated objectives
3. The economic factors that make building this project untenable

The fact that solid, more economically feasible alternatives are available to achieve this project's purported goals supports our recommendation, as does the fact that this project cannot be profitably built. This project is also greatly muddled by having been specifically proposed to provide transmission capacity for the project proponent's own yet-to-be-built 1,000-MW natural gas-fired power plant. While we document this fact and take issue with the project's stated purpose and need, the following review focuses more on whether this stated purpose and need can be met in other, more efficient ways.

Thank you for considering these comments.

1

2412	Comment Response
1	The BLM Preferred Alternative for the proposed action is to grant right-of-way for two 500 kV transmission lines. The BLM has considered other options including alternate transmission routes and transmission technologies such as system upgrades, but they were eliminated because they would not be practicable and feasible as described in Section 2.3.3. The Bowie Power Station site is located approximately 14 miles from the TEP 345 kV transmission line corridor, and permits have been issued for a separate 345 kV transmission line to allow interconnection between the Bowie Power Station and the existing TEP transmission system at the Willow 345 kV substation.

2412

Sincerely,

Norm "Mick" Meader Pearl Mast

Norm "Mick" Meader, Co-Chair
Cascabel Working Group
(520) 323-0092
nmeader@cox.net

Pearl Mast, Co-Chair
Cascabel Working Group
(541) 929-4969
pearlmast@gmail.com

Attachments (4)

2

2412	Comment Response
	See following page(s)

2412

1. A Review of the Impacts Upon the San Pedro Valley and the Aravipa Region

1.1 Introduction

What argues most strongly against this project are the environmental sacrifices that must be made to complete it. The two primary alternative routes for this project in Arizona being considered between the Willow and Pinal Central substations –using the San Pedro River Valley or crossing the Galiuro Mountains near Aravaipa –both cross highly sensitive areas that have long been the focus of intense conservation efforts. The CWG extensively documented these values in our two contributions to the SunZia DEIS, "Draft Environmental Impact Statement Contributions for the Proposed SunZia Transmission Line Routes Traversing the San Pedro River Valley." and "Draft Environmental Impact Statement Contributions for the Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley."[1]

We have also documented our concerns in a letter to President Obama's top energy and environmental policy advisors, which is included as Attachment A. The environmental values and investments that this project affects are listed in Tables 1, 2, and 3. Without this project being of critical and overriding importance to this nation's well-being, the magnitude of its environmental impacts cannot be justified, especially when viable alternatives for achieving the project's stated objectives exist and the project lacks financial viability.

1.2 Overview of the Impacts of the Preferred Alternative Segment 4C2c, San Pedro River Valley

2 What is most damaging about the preferred alternative is opening an entirely new corridor for 30 miles parallel to the San Pedro River, the most sensitive and highly valued valley in southern Arizona if not the Southwest. The route also parallels the El Paso Natural Gas pipeline for an additional 12 miles and then follows a new corridor segment for another 5 miles, following the valley for nearly 47 miles. This greatly impacts the valley's highly prized conservation values, summarized in Tables 1–3.

3 This route seriously impacts the U.S. Fish and Wildlife Service's current Collaborative Conservation Initiative for the Lower San Pedro River Valley (Figure 1). The route closely parallels the acquisition boundary for a new wildlife refuge for nearly the entire length that the route is in the valley. The federal government is working at cross purposes with its own conservation initiatives here.

4 In addition, the preferred alternative must cross the Catalina/Rincon-Galiuro corridor that has been part of an Arizona State Land Reform initiative for several years. This proposition seeks to conserve these Arizona State Trust lands in the San Pedro Valley for conservation purposes in perpetuity. The preferred alternative must bisect these lands (see Figure 2).

[1] For additional comments by the Cascabel Working Group on the SunZia DEIS related to these two Arizona route alternatives – using either side of the San Pedro Valley or crossing the Galiuro Mountains near Aravaipa – see submissions by Daniel Baker (San Pedro Valley with emphasis on subroutes 4C2a, 4C2b, and 4C2c) and David Omick (Aravaipa crossing with emphasis on subroutes 4A and 4B).

3

2412	Comment Response
2	As stated, portions of the Preferred Alternative Segment 4C2c are parallel to the San Pedro River and some portions are parallel to a pipeline. After crossing the river, the distance between the transmission line route and the river would vary from about 3 to 5 miles, within the San Pedro River Valley (see Figure M5-1W). The Project could impacts many of the valley's conservation values generally listed in Tables 1-3 of this letter, although many of these would not be affected by the preferred alternative route. In particular, the Redington Ball Court, 7B Ranch, Muleshoe Ranch Preserve and Joint Management Area, Three Links Farm, lower Hot Springs Canyon, Adobe Preserve North, and others would not be affected. This impacts to values or lands listed in theses have been documented in Chapter 4 of the DEIS.
3	Although the preferred alternative route would cross and parallel the area delineated as the Collaborative Conservation Initiative for the Lower San Pedro Valley (Figure 1), the route would closely parallel the existing two, 345 kV transmission lines near the (Narrows) river crossing, which would avoid serious impacts to, or conflicts with, conservation values or lands within the area.
4	As stated, the preferred alternative route would cross the Catalina/Rincon-Galiuro corridor. Although these lands had been considered part of the State Land Reform initiative at one time, they are composed of primarily Arizona State Trust lands, leased for grazing, and have not been designated for conservation purposes by the Arizona State Land Department.

Table 1. Summary of Lower San Pedro River Valley environmental values

- One of the Nature Conservancy's "Last Great Places"
- Last free-flowing river in the Desert Southwest
- Part of the largest unfragmented landscape in Arizona outside the Grand Canyon region
- One of the three principal desert life corridors in the Southwest (along with Colorado and Rio Grande Rivers)
- Exceeds the Rio Grande River Valley in biological richness
- Hosts the largest mammal species diversity in North America
- Recognized as a Globally Important Bird Area by the American Bird Conservancy
- Principal north-south migration corridor for Central and South American birds
- Habitat for numerous threatened and endangered species
- Hosts one of the largest remaining intact mesquite forests in the world
- Rich archaeological history dating from earliest North American human occupation (Clovis)

Table 2. Current and recent federal conservation initiatives in the Lower San Pedro Valley

- *U.S. Fish and Wildlife Service* Lower San Pedro River Wildlife Refuge and Collaborative Conservation Initiative
- *America's Great Outdoors* Lower San Pedro River conservation initiative
- *NRCS/USFWS* joint Working Lands for Wildlife Habitat initiative
- *Resolution Copper Mine* Land Exchange (7B Ranch)
- *USDA Forest Service* Forest Legacy Program's #1 preservation objective in 2009

Table 3. Other agencies and organizations with conservation lands and easements in the Lower San Pedro Valley

- *Archaeology Southwest* – Bingham Cienega, Redington Ball Court (fee lands) and easements on other privately owned parcels.
- *Arizona Game and Fish Department* – newly acquired fee lands from ASARCO and John Smith near Aravaipa; holder of Forest Legacy conservation easements near Cascabel; other easements near ASARCO properties.
- *Bellota Preservation Corporation* – lower Buehman Canyon (multiple fee parcels)
- *Bureau of Land Management* – Cascabel conservation area (fee and easement), Muleshoe Joint Management Area and proposed 7B Resolution Mine land exchange.
- *Bureau of Reclamation* – San Pedro Preserve at Dudleyville, Cook's Lake, Spirit Hollow, Three Links Farm (fee and easement mitigation lands)
- *Nature Conservancy* – San Pedro Preserve at Dudleyville, H&E Farm, Aravaipa Canyon, lower Hot Springs Wash, Muleshoe Ranch Preserve, Three Links Farm (fee and easement lands)
- *Pima County* – A-7 Ranch, Buehman Canyon, Bingham Cienega, Six Bar Ranch (fee lands)
- *Saguaro-Juniper Corporation* – lower Hot Springs Canyon (fee lands)
- *Salt River Project* – Adobe Preserve North, Black's Farm, Spirit Hollow (fee mitigation lands)

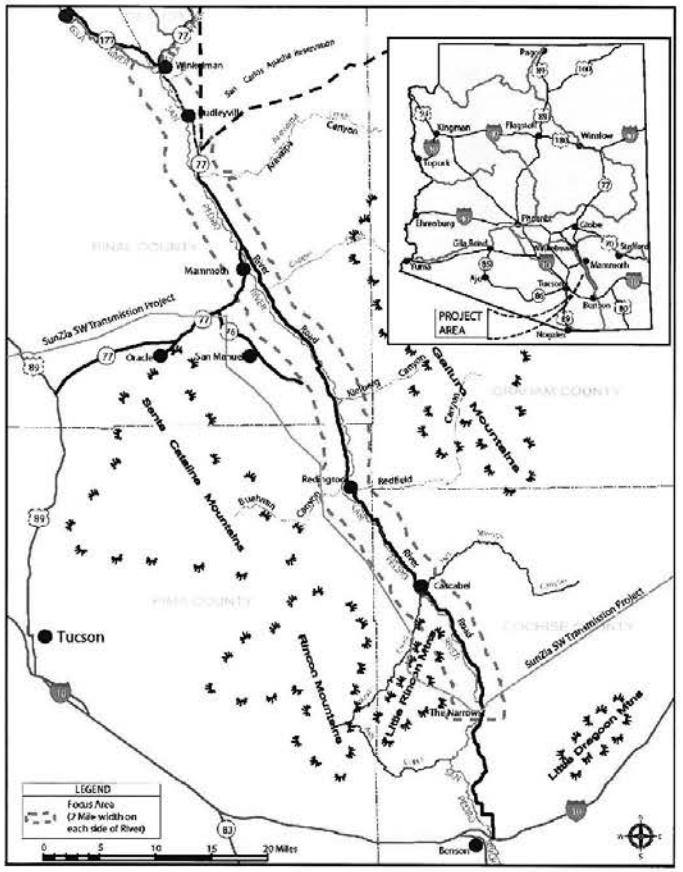


Figure 1. Impact of the SunZia preferred alternative on the acquisition envelope (dashed green line) for the Lower San Pedro River National Wildlife Refuge, proposed as part of the U.S. Fish and Wildlife Service's current Lower San Pedro River Valley Collaborative Conservation Initiative.

2412

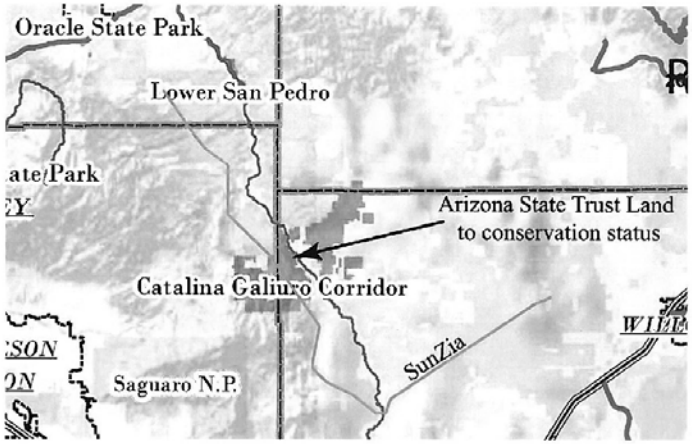


Figure 2. Impact of the SunZia preferred alternative on Arizona State Trust Land being considered for inclusion in conservation status in Arizona State Trust Land Reform initiatives (dark blue areas). The blue irregular line is the San Pedro River.

5

The important features that SunZia impacts within the San Pedro Valley portion of the preferred alternative are listed in Table 4. Of great importance is the largely unfragmented nature of this entire area, which includes the Aravaipa region. This is the largest unfragmented area in the state of Arizona outside the Grand Canyon area. Figure 3 is the habitat fragmentation map of Arizona produced by the Arizona Game and Fish Department, while Figure 4 shows the critical portion of the preferred alternative in the San Pedro Valley marked by the red line. The darker the blue in these figures, the more unfragmented the habitat. These maps demonstrate how unique this area is environmentally and why it is important to protect it against large infrastructure projects such as SunZia that would degrade it.

Table 4. Preferred alternative impacts in the San Pedro Valley

Feature	Sensitivity and impacts
Allen Flat	While the SunZia preferred alternative parallels Tucson Electric Power Company's 345-kV lines across Allen Flat, it is located 1,800-2,000 feet south of TEP's corridor, necessitating construction of an entirely new road to build and maintain the project. Creating an entirely new road undermines the reason for routing the project in this corridor. This area harbors a small pronghorn antelope herd.
San Pedro River crossing	Of critical sensitivity is the crossing of the San Pedro River just north of the Narrows. The riparian mesquite forest is particularly sensitive. Figure 5 shows the impact of clear-cutting of riparian

6

2412	Comment Response
5	Allen Flat – The SunZia transmission lines would cross over the TEP lines near the river crossing, allowing the use of spur roads to be built to the existing access roads. The roads would not prevent antelope from crossing the corridor. San Pedro Crossing – Vegetation maintenance would require tall trees to be cut to provide clearance between the conductors, but would not require clear-cutting of riparian vegetation. Little Rincon – In response to comments received during the scoping process and additional analysis of the corridors provided for review at that time, the study team made several modifications to alternative route alignments within the study area, including the alternative Subroute 4C2c. Paige Canyon – Comment noted. Roble and Soza Canyons/A-7 Ranch – As stated, the preferred alternative is located on lands in between the A-7 Ranch parcels held by Pima County. The Project would require easements to be obtained on Arizona State Trust Lands that are currently leased for grazing and would not prohibit future conservation management efforts by Pima County. Buehman Canyon – The preferred alternative crosses private lands in this area, but none are held by Pima County. Six-Bar Ranch/Edgar Canyon – Comment noted.

5

	vegetation associated with Tucson Electric Power Company's 345-kV lines across the river. This occurs downriver from the proposed SunZia crossing ~0.65 miles and is an unacceptable impact.
Little Rincon Area	The preferred alternative on the west side of the San Pedro River *follows a route that was not presented in public scoping*, crossing the Little Rincon area and dropping into Paige Canyon attempting to stay away from the river. The greatest impact occurs along Redrock Creek and McCormick Canyon.
Paige Canyon	Of particular concern with this route segment is its traverse down Paige Canyon, the principal wildlife corridor connecting the Rincon Mountains with the San Pedro River. The lines are sited just above the riparian area on the east side of the canyon for more than 2 miles.
Roble and Soza Canyons/A-7 Ranch	The preferred alternative must cross both Roble and Soza Canyons, large tributaries to the San Pedro River on the west. These canyons are part of Pima County's A-7 Ranch, which was acquired with open space bond funds at a cost of $2 million. This acquisition was undertaken specifically to preserve these lands for conservation purposes. The preferred alternative splits this ranch lengthwise into two nearly equal halves.
Buehman Canyon	After crossing Pima County's A-7 Ranch, the preferred alternative must cross lower Buehman Canyon, which contains one of the rare perennial streams that enters the San Pedro Valley and has been designated 'Unique waters' status.. All of the private land within Buehman Canyon between the river and the National Forest is in conservation status, much of it having been transferred to Pima County from the Nature Conservancy.
Six-Bar Ranch/Edgar Canyon	After crossing Buehman Canyon, the preferred alternative must cross Edgar Canyon, which drains Pima County's Six Bar Ranch. The Six Bar Ranch was purchased at a cost of $11 million by Pima County again as part of its open space acquisition program. The preferred alternative skirts the ranch on the east and then crosses associated State Trust Land grazing leases on the very northeast corner of the ranch.

1.3 Impacts of the Alternative Subroute 4B, Sulphur Springs Valley, Including the Aravaipa Valley–Galiuro Mountains Crossing

6

While the crossing of the Galiuro Mountains at Aravaipa was not selected as the preferred alternative, the pressures against using the San Pedro Valley for SunZia may make the Bureau of Land Management reconsider the Aravaipa route as a less impactful alternative. *We make the strongest statement possible that the Aravaipa route is not a better choice and that the impacts there would be as great and as damaging*. This route crosses the roadless area that unites the Aravaipa Canyon and Galiuro Mountain Wildernesses and impacts the viewshed of the Santa Teresa Wilderness. The total combined wilderness acreage is ~120,000 acres.

2412	Comment Response
6	The alternative Subroute 4B would cross Aravaipa Creek between the two Wilderness areas, as stated. For clarification, the corridor centerline of the alternative route would be approximately 3.5 miles from the Aravaipa Canyon Wilderness (the nearest) and 5.5 miles from the Galiuro Wilderness boundaries.

2412

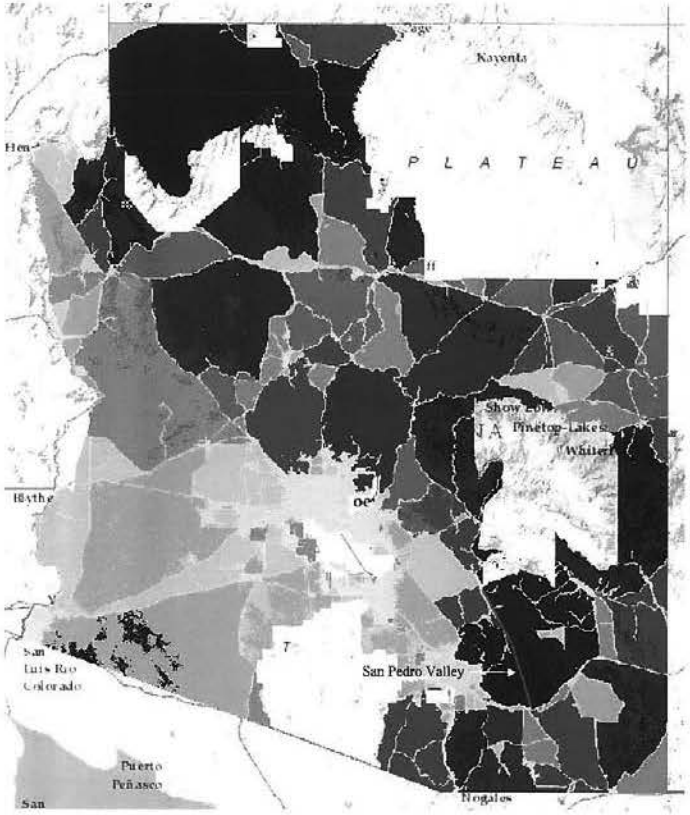


Figure 3. Habitat fragmentation map of Arizona produced by the Arizona Game and Fish Department, available from http://www.habimap.org/habimap. The darker the blue, the less habitat fragmentation. The lower San Pedro Valley/Aravaipa region remains the second least fragmented landscape in Arizona, surpassed only by the Grand Canyon area. The approximate location of the San Pedro River Valley is shown by the red line.

8

2412	Comment Response
	See following page(s)

2412

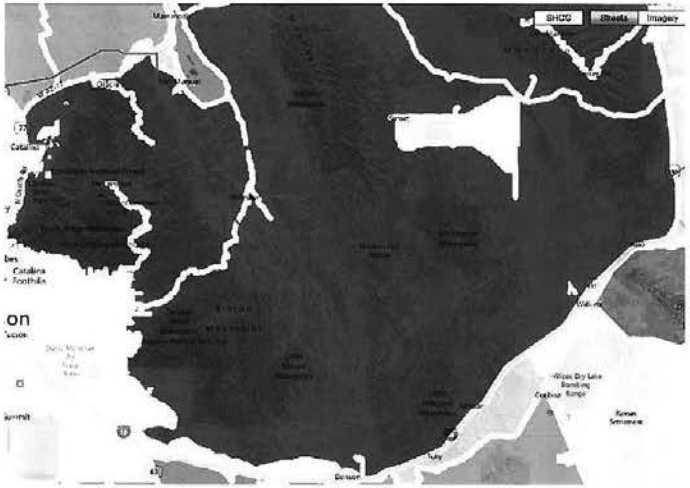


Figure 4. A more detailed view showing the SunZia preferred alternative in the San Pedro Valley superimposed on the Arizona Game and Fish Department's fragmentation map for Arizona. The distance from Benson (south) to Mammoth (north) along the river is ~60 miles.

7 Subroute 4B threads its way through a narrow two-mile-wide passage between Bureau of Land Management lands incorporated into its Aravaipa Ecosystem Management Plan and lands within the Coronado National Forest being considered for addition to the Galiuro Wilderness. Conservation investments at both the east and west ends of Aravaipa Canyon and along its margins by the Nature Conservancy are substantial.

8 Again, we refer the reader to the Cascabel Working Group's DEIS contribution, "Draft Environmental Impact Statement Contributions for the Proposed SunZia Transmission Line Route Traversing the Aravaipa Watershed and Lower San Pedro River Valley," which documents the rich environmental and biological values of this area and its uniqueness. For a detailed analysis of the SunZia DEIS regarding routes that cross the Galiuro Mountains at Aravaipa, see David Omick's submission for the Cascabel Working Group on subroutes 4A and 4B.

2. The Consequences of Choosing the *No Action* Alternative

2.1 Can Other Alternatives Meet the Objectives of the SunZia Project?

The DEIS states that the principal objectives of this project are to (1) provide transmission capacity for renewable energy generation development, largely to meet the renewable energy

9

2412	Comment Response
7	Comment noted
8	Comment noted

2412

Figure 5. Clear-cutting of riparian vegetation across the San Pedro River beneath the double 345-kV lines that connect Tucson Electric Power Company's Springerville generating station with Tucson. The San Pedro River flows sinuously from north to south across the photo, with the Cascabel road shown to the right. This clear-cut occurs 0.65 miles north of the crossing of the SunZia preferred alternative.

portfolio standards of Arizona, California, and Nevada, (2) relieve grid congestion across southwestern New Mexico and southeastern Arizona, and (3) increase overall system reliability. Notwithstanding that this project was proposed specifically to provide transmission capacity for the SouthWestern Power Group's Bowie, Arizona, 1,000-MW natural gas-fired power plant, this section of our discussion specifically addresses whether other projects and strategies can meet these three stated objectives.

9

Given the other projects currently being proposed in the region and the developing physical and economic realities of renewable energy development in the states this project would purportedly serve, the answer to the question whether the "No Action" alternative can meet these needs is an unequivocal "yes." That this is possible strongly supports the "No Action" alternative as a sound choice. This choice both protects critical environmental values while meeting essential regional needs more efficiently and economically using other currently proposed projects and strategies.

2.2 Meeting Arizona, California, and Nevada Renewable Energy Portfolio Standards

10

A fundamental justification given for this project by the BLM and the project proponent is the purported need to meet the renewable energy portfolio standards of the states of Arizona, California, and Nevada. New Mexico is portrayed as having an excess of renewable energy that it can sell to these states, which are portrayed as being unable to meet their needs with their own

10

2412	Comment Response
9	Please see response to Comment No. 1.
10	Recent projections from the Western Electricity Coordinating Council (WECC) in a table titled, "2022 Common Case Loads and RPS Requirements in WECC Region, Modified as needed for DG Assumptions" (http://www.wecc.biz/committees/BOD/TEPPC/20120106/Lists/Minutes/1/2022%20Renewables_FINAL_20120206.xlsx last visited October 2, 2012) show that approximately 55,765 GWh of new renewable generation will need to be added to the WECC Region (i.e., California, Nevada, Arizona, and New Mexico) between 2011 and 2022 in order to meet RPS. By comparison, DEIS Table 1-1 indicates a projected need for 58,654 GWh of renewables by 2020 and 70,794 GWh by 2025. The deliverability, destination, and cost-competitiveness of the electricity carried on the proposed SunZia transmission system are subject to future negotiations. Subscription of SunZia's available transmission capacity is dependent on the customers of the transmission line (i.e., generators planning to sell energy) and their associated buyers (i.e., utilities, cooperatives, other energy consumers); therefore, it is unknown and speculative to predict which energy markets SunZia's future (but currently unidentified) customers may serve. Further, electricity on the transmission system is in a constant state of fluctuation and is dependent on a number of factors (e.g., changes in energy demand, addition of transmission, addition of generation resources, fossil generation, project closures due to economics, age and regulations etc.). Future electrical paths for electricity transported by SunZia will be determined based on available transmission capacity and contractual arrangements in place at the time SunZia becomes operational.

10

resources. It has become clear, however, that these states do not need this power and are unlikely to avail themselves of the power that New Mexico might provide. Attachment B includes a letter and email message from Michael Picker, Senior Adviser to Governor Brown of California for Renewable Energy Facilities, testifying that California utilities do not need this power and are unlikely to purchase it. In addition, Arizona is easily on its way to meeting its renewable energy portfolio standard with its own resources, and likewise, Nevada utilities have purchased enough Renewable Energy Credits to meet their needs through 2029. Attachment C contains published articles that confirm this. Utilities prefer to rely on renewable energy resources that can be developed closer to load rather than import power over many hundreds of miles from out of state.

What is lacking in proposing SunZia is an assessment of the magnitude of renewable resources in these southwestern states and whether these states need to import power from New Mexico, or for that matter, whether New Mexico needs to import power from them. To put this in perspective, Wyoming has enormous coal reserves, but no one would build a coal train to the Four Corners region to import coal there because that region already has enormous coal reserves. Yet in many respects, this is the rationale for building SunZia: a huge transmission system is being proposed largely because renewable energy sources exist in a particular region, not because those resources can or would be used in distant places. While proposing this project may satisfy a highly valued policy ideal, economics does not support building it. *These resources first need to have a use where they are proposed to be used.*

This is to say, the purported renewable energy objectives of SunZia can easily be met with more local resources, and building a huge transmission system to transfer renewable energy across vast distances within the Southwest is ultimately unnecessary. This lack of need is characteristic of how renewable resources are distributed. Coal is concentrated in very specific areas, and power generated by it must be transported long distances. Renewable energy is very much the opposite: it is a far more abundant local resource that lends itself to local or sub-regional development and distribution. This is a much more cost-effective and pragmatic approach to using this resource.

While huge renewable energy reserves may exist in more remote areas, this does not mean that a need exists to develop and deliver them. A large percentage of them will remain unused, held in reserve in the same way that the nation's huge coal reserves are. More local renewable resources must be exhausted first for these more distant sources to be useful and economic, and it is very possible that as demand grows and technology advances, utilities can and will progressively develop local reserves to fully meet their needs. This is because the local renewable energy potential in the Southwest is so huge.

2.3 Other Projects Being Developed to Deliver New Mexico Renewable Energy to Western States

11

In evaluating the need for SunZia, it is essential to consider the alternative projects that exist for exporting New Mexico renewable energy and increasing system reliability. New Mexico's Renewable Energy Transmission Authority has aggressively pursued the development of renewable transmission capacity largely at the behest of potential New Mexico wind energy providers who are eyeing Western markets to sell their power to. In doing so, they have largely ignored the actual markets for this power, which are far weaker than they have envisioned. They

2412	Comment Response
11	The cumulative impacts analysis in the DEIS (Section 4.17) accurately reflects the current status of the future transmission project proposals, as there is insufficient information available about the listed project proposals to understand their purpose and need statements, benefits, or potential environmental impacts. The range of alternatives considered included potential transmission line routes that could provide electrical interconnections with renewable energy resources located primarily within the Qualified Resource Areas (QRAs) for wind energy, in south-central New Mexico, and the QRAs for solar energy located in southwestern New Mexico (e.g., BLM designated Afton Solar Energy Zone) and southeastern Arizona. Alternatives due west from the northern portion of the study corridors in New Mexico (High Plains Express Transmission Project and the Centennial West Clean Line Project) would not be practical or feasible to achieve this objective. The proposed Southline Transmission Project (345 kV), located between southwestern New Mexico and southeastern Arizona, could transport additional electricity generated from sources in those areas; however, the purpose and need for the Southline project is different than for the SunZia Project. The Southline project's capacity would be limited according to the plan to construct portions of the proposed transmission lines within existing rights-of-way."

11

have assumed that California or other states will purchase every watt of power they can produce, and it is clear now that this will not be the case. Table 5 gives a list of current projects being developed to export New Mexico renewable energy.

What is clear from this is that not all of this transmission capacity can be supported by generation in the time frame needed to pay for it. The immediate market for the magnitude of power that these lines can carry does not exist, and it may never exist because of the enormous renewable energy potential of the three states targeted for it: Arizona, California, and Nevada.

Table 5. Current high-voltage and extra-high-voltage New Mexico transmission projects focused on exporting renewable energy.

Project	Description	Capacity	Purpose
Southline	double-circuit 345 kV/230 kV-kV lines	1,000-1,500 MW	Southwestern New Mexico to Central Arizona. Develop solar energy and increase reliability.
High Plains Express	single 500 kV-kV line	1,500 MW	Central New Mexico to central Arizona. Develop predominantly wind energy. (currently on hold because the risks to build the project are considered too high)
Centennial West Clean Line	single HVDC 500-kV line	3,500 MW	Central New Mexico to California. Deliver predominantly wind energy.
Lucky Corridor	double-circuit 230-kV lines	1,100 MW	Deliver Northeastern New Mexico solar and wind generated electricity to Taos, with transfer to the Four Corners hub.
Power Network New Mexico	double-circuit 345-kV lines	1,500 MW	Deliver central and eastern New Mexico renewable energy to Rio Puerco, with transfer to the Four Corners hub.
Total Capacity		**8,600-9,100 MW**	

This strongly suggests that SunZia's enormous amount of transmission capacity will likely not be used in the time frame required to recover costs and may never be fully needed. For this much total transmission capacity to be economically viable – up to 12,600 MW – it must be built over a much longer time frame with construction staggered in time. It must not be built simultaneously. Some of these projects are doomed to financial failure otherwise, and they may never be needed if the targeted states aggressively and efficiently development their own more local in-state renewable resources. Improvements in renewable energy technology and the changing economics of renewable generation will also reduce or eliminate the need to import power from out-of-state generation projects.

2.4 Reducing Grid Congestion and Increasing System Reliability

12

A more general regional issue that SunZia claims to address is grid congestion and system reliability across southwestern New Mexico and southeastern Arizona. This issue has been recognized by regional transmission planning groups in the Southwest as important. If the "No Action" alternative is selected, can these needs be met? Again, the answer is "yes."

2412	Comment Response
12	As reflected in the proposed action, the SunZia Project was designed to increase transmission capacity by at least 3,000 MW, and may ultimately be designed to increase transmission capacity by up to 4,500 MW. The Applicant identified the 3,000 MW mark as a minimum increase based upon the existing demand for increased transmission capacity to relieve congestion, improve reliability, and provide future energy sources, including renewables, with access to market, balanced by marketing factors and engineering constraints. Please also see response to Comment No. 11.

12

These issues are currently being addressed by the Southline Project, a transmission system proposed from the Afton generating station southwest of Las Cruces to the Saguaro generating north of Tucson. This project consists of (1) building a new double-circuit 345-kV line from the Afton generating station to the Apache power plant near Willcox, Arizona, and (2) replacing the single-circuit 115-kV transmission line between the Apache power plant and the Saguaro generating station with a double-circuit 230-kV line. This project is 355 miles long and essentially parallels the SunZia Southwest Project its entire length, although it will pass through Tucson rather than bypass it as SunZia does. This project will reduce congestion and increase reliability across this region in the same way that SunZia would. It will also provide transmission capacity for solar development along this corridor. This project will provide 1,500 MW or more of transmission capacity in southwestern New Mexico and 1,000 MW or more of transmission capacity in southeastern Arizona.

The Southline Project is more appropriately scaled for this region and will accomplish essentially all that SunZia would with minimal environmental impact. New transmission capacity requires generation capacity to support it, and this region cannot support building both of these projects simultaneously. Building SunZia merely to transport wind-generated electricity to Arizona and California is very risky in light of renewable energy development in those states. In addition, four other projects have been proposed to export wind-generated electricity from New Mexico, noted in Table 5. These four projects have a total capacity of 7,600 MW. One of these, the High Plains Express Project (HPX), begins at the same exact location as SunZia and ends ~30 miles northeast of where SunZia does. This project would accomplish precisely the same purpose as SunZia would in delivering New Mexico wind energy westward. It follows an existing corridor for its entire length from the Rio Grande River to Phoenix, greatly reducing environmental impacts. HPX is currently on hold for the very reasons that make SunZia so vulnerable financially.

We cannot recommend more strongly that the Southline Project rather than SunZia be chosen to meet the regional need for reducing grid congestion and increasing system reliability. The Southline Project will also provide vastly more benefit to southeastern Arizona because of the multiple grid interconnections it will have. This permits a much more adequate distribution of power in this region as well as more interconnection opportunities for renewable energy facilities. Building SunZia and the Southline simultaneously is redundant and jeopardizes the success of both projects. Both physical and economic pragmatism dictate that only one of these should be built at this time. Even then, the financial success of whichever project is favored depends upon the rate of construction of new generation facilities across this region. The slower this rate, the more vulnerable the project is. Whether these new facilities are renewable or nonrenewable, they are essential to the long-term success of either project.

3. The Lack of Project Economic Viability

3.1 Conclusions from High Plains Express Project Feasibility Studies Regarding SunZia

13

No feasibility study has ever been done for the SunZia Project, and the most relevant studies are those undertaken for the related High Plains Express Project (HPX). These studies provide the best information for assessing the economic feasibility of SunZia. SunZia is the southern leg of

2412	Comment Response
13	Please see response to Comment No. 11.

13

that portion of the High Plains Express Project between central New Mexico and central Arizona, and SunZia was included as an integral part of the feasibility studies for HPX. The High Plains Express *Stage 2 Feasibility Report* came to the following conclusions. All of these points are relevant for SunZia and make clear the risks of this project.

- High level of uncertainty
  - Scenarios show wide range of outcomes.
  - Public policy adds additional uncertainty.
- Specific demand for HPX has not been identified.
- Although many of the resulting benefit-cost ratios indicate a net positive result, the overall economics and associated risks do not warrant development without further study.
- There is no clear method for cost allocation and cost recovery over multiple jurisdictions with varying benefits.
- At this time, key uncertainties do not merit moving forward with a full commitment to develop the overall project unless a customer is identified that provides for cost recovery.
- There is significant uncertainty around the base-case assumptions.
- The project risk in terms of both development capital and construction capital is very large.
- At this time, it is not reasonable to risk significant development capital based on the benefit-cost ratio for the entire project, in light of the uncertainties.

These multiple reasons for placing the High Plains Express Project on hold should be more than enough to give one pause about building SunZia.

3.2 Arizona and California Use of New Mexico Power – Will It Occur and Be Enough?

14

While New Mexico has substantial renewable energy resources, *the renewable energy resources of Arizona, California, and Nevada are in themselves huge and make these states self-sufficient in renewable energy for the reasonably foreseeable future* (see Attachment C). Rapidly increasing Arizona and California renewable energy capacity has sharply decreased the demand for out-of-state resources and makes the use of them by these states highly questionable. Utilities prefer to develop renewable generation close to load rather than import renewable energy from great distances.

The market potential for New Mexico power in western states is now clearly much less than anticipated than when SunZia was proposed, meaning that the out-of-state market for New Mexico power will develop far more slowly than expected, if at all. Consequently, this reduced or lacking market greatly reduces the amount of transmission capacity that can be financially supported. *Power must be sold to utilities through this project in order to pay for the project*. Development of these more local resources sharply reduces the need for the enormous amount of transmission capacity that SunZia would provide and greatly increases the project's financial vulnerability. SunZia is thus a very high risk project that demands close financial scrutiny, not only by the federal government but by potential investors as well.

In addition, delivering power to California would severely reduce central and western Arizona's transmission capacity (see Attachment D, CWG letter to the Arizona Corporation Commission). These impacts must be resolved before permitting SunZia to proceed. At a minimum, SunZia

2412	Comment Response
14	Please see response to Comment No. 10.

14 would have to extend one 500-kV line from the Pinal Central substation to the Palo Verde hub to protect Arizona transmission capacity for in-state use and solar development. Without this, SunZia will *reduce* not *increase* transmission capacity in Arizona for solar development because most development is scheduled to occur in the central and western parts of the state.

4. Recommendation: The *No Action* Alternative

15 Given the route alternatives, the environmental impacts, the alternative projects and strategies for meeting the needs that SunZia would, and the lack of financial viability for the project, *the No Action alternative is the sound choice here*. Energy planners could consider combining the eastern portion of the SunZia Project with the Southline Project if they wish to provide some access to wind generation in central New Mexico. Again, the use of this wind generation by Arizona and California utilities is likely to be small, which places this project as a whole at great financial risk. Combining these two projects would make both more sound and more financially manageable. Even so, building a single combined project entails substantial risk.

This review makes apparent how haphazard and unplanned the strategies have been for proposing and building transmission capacity in this region. It is "every man for himself," which leads to overlapping projects and excessive transmission capacity. That is, too much transmission capacity is being contemplated simultaneously, and energy markets cannot financially support it or pay for it. Regional transmission planning should be comprehensive and coordinated rather than piecemeal and contradictory. In addition, planners need to develop a comprehensive view of how renewable generation is likely to develop based upon (1) resource location, (2) local resource magnitude, and (3) market constraints.

In light of their immense reserves, Southwestern states should be self-sufficient in their renewable energy resources. This essentially eliminates the need for New Mexico to provide more western states with renewable energy and thus reduces the need to build large amounts of transmission capacity for this purpose. Building an efficient, cost-effective transmission system that can survive financially is difficult to do given all of the variables involved and the resulting risks.

16 SunZia's proponents have clearly not adequately assessed these risks or adjusted for them. SunZia assumes that if the project merely obtains the necessary permits, the project will somehow succeed and renewable projects will be built to feed it with power. This is a financially hazardous and dangerous presupposition. The federal government must decide whether it should issue a permit for a project that will almost certainly result in excessive capacity and have a high likelihood of ending in financial failure. *The federal government must also decide whether it wishes to partially finance such a project or become a partner to it because ultimately this is what will be asked and required to build it*.

2412	Comment Response
15	Please see response to Comment Nos. 1 and 10.
16	As provided in the Memorandum of Understanding between the SunZia Southwest Transmission Project's Applicant (SunZia Transmission, LLC) and the BLM, it is the Applicant's responsibility to reimburse the federal government for expenses to process the right-of-way application under a cost recovery agreement. Financing by the federal government is not a condition of the Proposed Action.

2446

11770 Steeple A Rd. N.E.
Deming, New Mexico 88030
August 12, 2012

RECEIVED
B.L.M.-MAILROOM
2012 AUG 15 AM 10:51
STATE OFFICE
SANTA FE, NEW MEXICO

Bureau of Land Management
Sun Zia Southwest Transmission Project
P. O. Box 27115
Santa Fe, New Mexico 87508-0115

1 As I understand, the proposed project is primarily intended to carry power from renewable sources, mostly wind energy in the Corona, New Mexico area to Arizona and possibly California. The energy resources in the Corona N. M. area have not even been developed yet. It is a well known fact that the renewable energy concept is suffering a substantial loss in popularity especially related to new projects, in part, because the "free tax" payer money to build these projects has evaporated. The well known fact that power generated from renewable sources is several times more expensive than power from our traditional sources of oil, natural gas and coal. Recently Bill Childress, Las Cruces District BLM Director along with other staff members spoke to the Luna County Public Lands Use Advisory Committee and indicated that there had been a substantial number of applications for renewable energy projects on BLM lands over the last three years in the Las Cruces District. However, they had all been withdrawn and the projects didn't get built. That is a pretty good indication of the diminishing popularity of renewable energy projects at this time.

Therefore, it makes no sense to support transmission lines that clutter up New Mexico; devastate property values, diminish hunting opportunities, send the power out of state and yield very few full time jobs after the construction phase is over.

2 In reference to the preferred alternative passing thru the well known "Nutt Grasslands" of south western Sierra County and north eastern Luna County; I have a few comments. The Nutt Grasslands are known not only for their vast expanse of pure natural grass with very little invasion from undesirable brush species but also the historical significance of the area. There remain remnants of the railroad bed that carried the ore during the gold and silver days of the 1800"s from the mines at Lake Valley and Hillsboro to the rail had at Nutt. There remain signs of the cattle drives from ranches in the surrounding mountains to the stock pens at Nutt and the frequent encounters between settlers and Indians. There are three well known trails crossing those grasslands including the Butterfield trail, One leg of the Continental Divide Trail and a trail connecting the old military forts in the area. Those being Ft. Cummings, Ft. Seldon and Ft. Thorn. There are individuals and groups walking and riding those trails throughout the year; enjoying the history of the area. We often encounter folks watching and identifying the numerous species of birds that use the area as a fly way. These are people from across America as well as New Mexicans enjoying the attributes of the Nutt Grasslands. Also, during World War Two, pilots from the near by airbase at Deming were trained over the Nutt Grasslands. There are still signs of those target areas today even though they have been covered by grass over the years.

4 The Department of Interior declared N. M. Highway 26 as part of the National Trails System and the N. M. Highway 27 as a National Scenic Back Country By Way. That

2446	Comment Response
1	Comment noted
2	The Project would be immediately adjacent to existing transmission lines in the Nutt Grasslands, and would use existing access with the exception of spur roads. The Noxious Weed Management Plan (Appendix B2 of the POD) provides detailed information on methods to prevent the spread of invasive plants.
3	Comment noted. Note that a review of cultural resource types previously identified within the Preferred Alternative is discussed in Section 3.8.2.2. Section 4.8.3 provides an impact analysis for various resource types, including trails.
4	The Preferred Route crosses NM Highway 27, which was identified in Section 3.9.3.1 of the DEIS as a high concern level travel route due to its designation as a scenic byway (Lake Valley Backcountry Byway), while parallel to a 230kV transmission line. Visual contrast would be reduced because the existing facilities exhibit similar form, line, color, and texture as compared to the proposed project. NM Highway 26 is not designated as a scenic byway and is not identified as a trail on the National Trail Systems map (http://www.nps.gov/nts/).

2446

declaration was done by the Department of Interior because it is an area that has special qualities. Two 500 KV transmission lines is not compatible with those pristine-scenic views that travelers enjoy from N. M. Highway 26 and 27. It seems absurd that the Department of Interior would designate the area along N. M. Highway 26 a d 27 as being in a special category and now a few years later the Bureau of Land Management would decimate that same area by allowing it to be in the preferred alternative for two large power lines.

In my opinion, the line should be located (if at all), south to the Las Cruces area ; then west along I-10 to an existing corridor where there are already three large capacity lines plus a gas line, communication line on the north side of I-10 and a major railroad which all lead to Deming, N. M

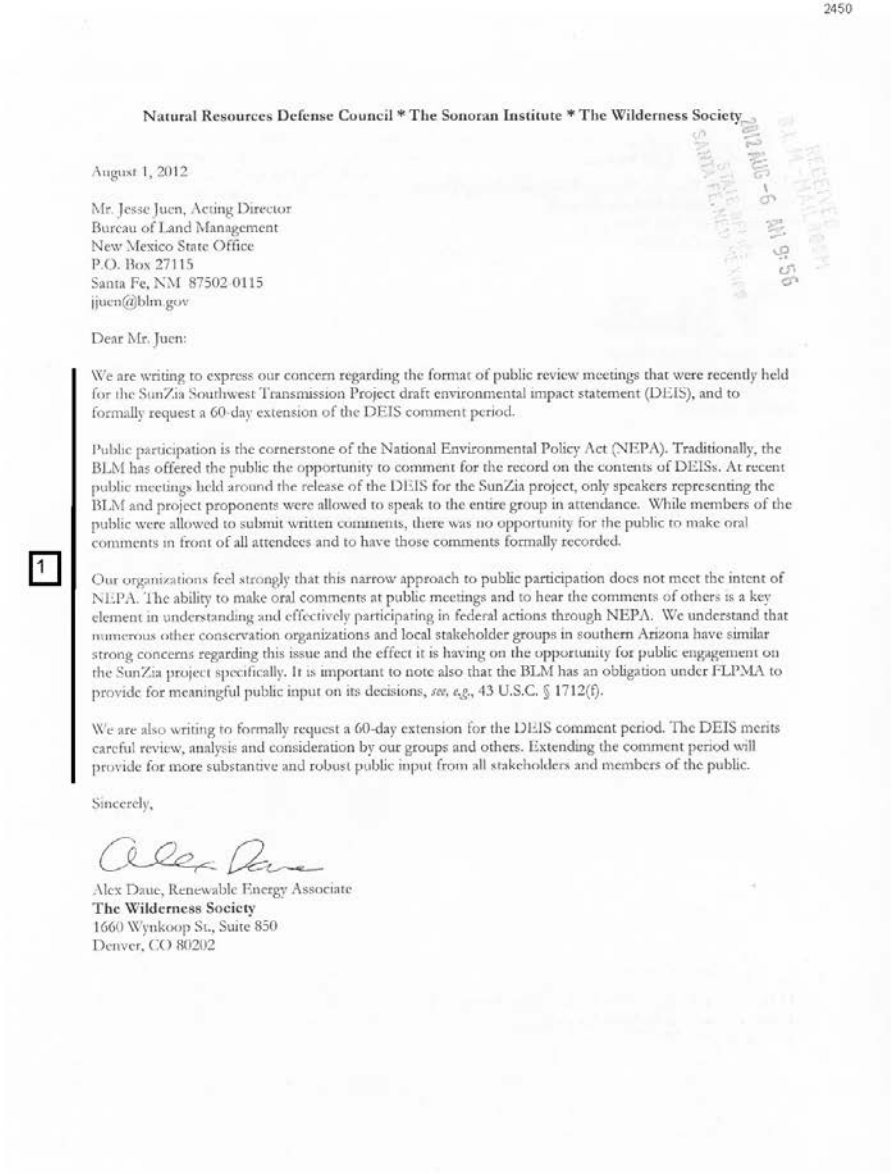
New Mexico is well known for its wide open spaces and beautiful views and south western New Mexico is one of the few places left in America that have the same rural characteristics as they have enjoyed for the last several hundred years. Don't mess that up with an eyesore that two 500 KV transmission lines will leave on the landscape; especially thru the Nutt Grasslands along N. M. Highway 26 and 27 in Sierra and Luna County.

Sincerely,

Joe Bill Nunn

Joe Bill Nunn
President-Southwest New Mexico Grazing Association

2446	Comment Response
5	Comment noted
6	Comment noted



2450

Natural Resources Defense Council * The Sonoran Institute * The Wilderness Society

2012 AUG -6 AM 9:56

August 1, 2012

Mr. Jesse Juen, Acting Director
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, NM 87502 0115
jjuen@blm.gov

Dear Mr. Juen:

We are writing to express our concern regarding the format of public review meetings that were recently held for the SunZia Southwest Transmission Project draft environmental impact statement (DEIS), and to formally request a 60-day extension of the DEIS comment period.

Public participation is the cornerstone of the National Environmental Policy Act (NEPA). Traditionally, the BLM has offered the public the opportunity to comment for the record on the contents of DEISs. At recent public meetings held around the release of the DEIS for the SunZia project, only speakers representing the BLM and project proponents were allowed to speak to the entire group in attendance. While members of the public were allowed to submit written comments, there was no opportunity for the public to make oral comments in front of all attendees and to have those comments formally recorded.

1

Our organizations feel strongly that this narrow approach to public participation does not meet the intent of NEPA. The ability to make oral comments at public meetings and to hear the comments of others is a key element in understanding and effectively participating in federal actions through NEPA. We understand that numerous other conservation organizations and local stakeholder groups in southern Arizona have similar strong concerns regarding this issue and the effect it is having on the opportunity for public engagement on the SunZia project specifically. It is important to note also that the BLM has an obligation under FLPMA to provide for meaningful public input on its decisions, *see, e.g.*, 43 U.S.C. § 1712(f).

We are also writing to formally request a 60-day extension for the DEIS comment period. The DEIS merits careful review, analysis and consideration by our groups and others. Extending the comment period will provide for more substantive and robust public input from all stakeholders and members of the public.

Sincerely,

Alex Daue, Renewable Energy Associate
The Wilderness Society
1660 Wynkoop St., Suite 850
Denver, CO 80202

2450	Comment Response
1	The DEIS was made available for public review and comment on May 25, 2012. The BLM held ten public meetings and scheduled a 90-day public comment period that ended on August 22, 2012. In total, the public scoping for the SunZia project has included a total of 22 public meetings and 255 days of public comment. A 45-day public comment period is generally the time provided for a DEIS. The BLM's planning regulations and guidance require a minimum 90-day public comment period for land use plan amendments. The SunZia project may involve several BLM land use plan amendments thus the 90-day comment period was provided. The SunZia DEIS comment period meets BLM requirements and affords interested parties opportunity and time to review the document and submit substantive comments. In addition, the BLM regulations implementing the National Environmental Policy Act regulations require that all substantive comments received before reaching a decision must be considered to the extent feasible. This means that substantive comments received after the 90-day comment period have also been considered before the Final EIS was issued.

2450

Helen O'Shea, Director, Western Renewable Energy Project
Natural Resources Defense Council
111 Sutter Street. 20th Floor
San Francisco, CA 94104

John Shepard, Senior Adviser
Sonoran Institute
44 East Broadway Boulevard, Suite 350
Tucson, AZ. 85701

cc: Mr. Adrian Garcia, SunZia Southwest Transmission Project Manager
Mr. Ray Suazo, Director, Arizona Bureau of Land Management
Mr. Mickey Siegel, SunZia DEIS Contractor, Environmental Planning Group
Mr. Tom Wray, Project Manager, SunZia Southwest Transmission Project

2450	Comment Response
	See following page(s)

2463

Resolution Copper Mining

102 Magma Heights - P.O. Box 1944
Superior, AZ 85173
Tel.: (520) 689-9374 - Fax: (520) 689-9304

September 21, 2012

Bureau of Land Management
Adrian Garcia, Project Manager
SunZia Transmission Line Project
P.O Box 27115
Santa Fe, NM 87502-0115

Re: Comments on SunZia Transmission Line Project Draft EIS/RMPA

Dear Mr. Garcia:

We appreciate the opportunity to provide comments on the SunZia Transmission Line Project Draft Environmental Impact Statement. We are a private property owner along the proposed line alternatives defined as Sulphur Springs Valley (4B) and North of Mt. Graham (4A). We plan to transfer these lands to the Bureau of Land Management (BLM) upon completion of a Federal Land Exchange, pending before Congress. As such, it is important for the BLM to understand the biological and cultural features of private lands that are part of that exchange.

Resolution Copper Mining (RCM) is a limited liability company owned 55 percent by Resolution Copper Company, a Rio Tinto PLC subsidiary, and 45 percent by BHP Copper, Inc., a BHP-Billiton LC subsidiary. Resolution Copper Company is the manager of RCM. Rio Tinto is a world leader in mining and exploration that discovers, mines, processes and supplies metals and minerals.

The Resolution Copper project is located roughly three miles east of Superior, Arizona, and is one of the largest copper ore bodies ever found. This enormous resource is expected to yield more than 1 billion pounds of copper per year when in full production and meet more than a quarter of the United States' anticipated copper demand – based on today's usage – for several decades.

Prior to developing the mine, Resolution Copper will spend about $1 billion to complete extensive environmental, cultural, engineering and other studies, and exploratory activities. To better facilitate construction and operation of the mine, we are seeking to obtain title to about 2,400 acres of U.S. Forest Service land at Oak Flat, under which the ore body lies, in exchange for about 5,300 acres of high-quality Arizona conservation lands owned by Resolution Copper. *The Southeast Arizona Land Exchange and Conservation Act* was drafted to do just that. The exchange will provide us the necessary access to develop the mine and allow the Resolution

2463	Comment Response
	See following page(s)

2463

Project to move forward, providing long-term economic and social benefits to the people of Arizona while preserving and protecting key conservation areas throughout the state.

The Southeast Arizona Land Exchange and Conservation Act has passed the US House of Representatives with the leadership of Congressman Paul Gosar and is awaiting passage in the US Senate with Senators John McCain and Jon Kyl as co-sponsors.

One of the key parcels in *The Southeast Arizona Land Exchange and Conservation Act* is 3,073 acres known as the 7B Ranch on the San Pedro River. This parcel which contains what is possibly the largest remaining mesquite bosque in the Southwest, will be conveyed to the Bureau of Land Management, and become a new unit of the San Pedro Riparian National Conservation Area. The Bureau of Land Management's San Pedro Ecosystem Acquisition Plan called the 7B Ranch one of the three highest remaining priority conservation sites along the nearly 90 miles of the lower San Pedro River.

The San Pedro River Valley constitutes one of the most important corridors for migrating birds in North America, and the lower San Pedro (including the 7B) has been identified as a Globally Important Bird Area.

The 7B Ranch also includes 21 known archeological sites, found during surveys by the Center for Desert Archaeology. These include four platform mound village compounds, artifact scatters, and dry land farming features.

Resolution Copper has purchased this land and has worked with The Nature Conservancy to restore and improve habitat before we convey it to the federal government as part of the land exchange.

1 Specific to the SunZia Transmission Line Project Draft Environmental Impact Statement, Link C592 is part of both routes 4A and 4B and would cross the San Pedro River at the 7B Ranch. We are concerned that the Sulphur Springs Valley (4B) and North of Mt. Graham (4A) alternative routes could adversely impact conservation values and migratory bird populations at the 7B Ranch. Given the significant ecological importance of the property as described in various Federal, State, and NGO studies and plans we urge you to consider a transmission line route that avoids the 7B Ranch

Thank you for your consideration of our comments and we look forward to further involvement in this process.

Sincerely,

Nicky Tesory

General Manager
Environment, Legal and External Affairs

2463	Comment Response
1	Comment noted. The BLM Preferred Alternative is Subroute 4C2c, which would avoid subroutes 4A or 4B (Link C592).

2464

GILA RIVER INDIAN COMMUNITY

POST OFFICE BOX 2140, SACATON, AZ 85147

TRIBAL HISTORIC PRESERVATION OFFICE

(520) 562-7162
Fax: (520) 562-5083

September 26, 2012

Jesse Juen, State Director
Bureau of Land Management
New Mexico State Office
P.O. Box 27115
Santa Fe, New Mexico 87502-0115

RE: Draft Environmental Impact Statement (Draft EIS) SunZia Southwest Transmission Project

Dear Mr. Juen,

1 The Gila River Indian Community Tribal Historic Preservation Office (GRIC-THPO) has received the Draft EIS for the SunZia Southwest Transmission Project dated June 15, 2012. The documents describes Bureau of Land Management (BLM) plans to granting a right-of-way to SunZia Transmission, LLC (SunZia) for construction of two 500-kilovolt electric transmission lines from the proposed SunZia East Substation, Lincoln County, New Mexico to the Pinal Central Substation, Pinal County, Arizona. The BLM New Mexico Office is the lead federal agency responsible for compliance with § 106 of the National Historic Preservation Act (NHPA). The exact length of the line is yet to be determined and can range from 460 miles to 530 miles long depending on the chosen route. Right-of-way width is expected to be 400 feet wide, but in certain locations can be as wide as 1,000 feet. Approximately 36% of the line (191) miles will be located on federally controlled lands in New Mexico and Arizona. The SunZia line will cross various federal lands, state lands, tribal lands, and private lands. Based upon initial analysis of the project map, the Tohono O'Odham Nation appears to have the most potential for direct impacts from this undertaking. Gila River Indian Community (Community) lands will not be directly effected, but location of the end point of the SunZia Transmission line, Pinal Substation, Pinal County, Arizona, is situated in an area of our responsibility and we are then the primary consulting tribe per the NHPA.

2 A Class I (records search) inventory has been conducted by the BLM for the undertaking. A substantial list of previous archaeological surveys for Arizona and New Mexico are attached with the document. We are unsure about the differences between reports listed as unknown or not listed. Class II (sample survey) inventories were also conducted in areas where site density is expected to be high which included riverine environments such as the San Pedro River Valley. Class II inventories were also conducted in areas where historic trails/roads were known to be present including the Butterfield Trail.

2464	Comment Response
1	No alternatives cross tribal lands.
2	The missing project information has been further researched and the table has been revised accordingly.

2464

3

The GRIC-THPO accepts that the Draft EIS is an comprehensive, informative document. The lack of a specific route and location for the powerline makes evaluation of the effects of this undertaking difficult to fully evaluate. It is clear that whatever route is selected, there will be adverse effects to the resources. The impacts upon cultural resources and the cultural landscape will be adverse, but until a route for the powerline and associated infra-structure is chosen, the severity of those adverse effects cannot be accurately gauged. In addition, any proposed mitigative actions cannot be discussed or evaluated until a final powerline route is chosen. The GRIC-THPO requests to review the associated documentation of the chosen powerline route when it is made available.

The proposed project area is within the ancestral lands of the Four Southern Tribes (Gila River Indian Community; Salt River Pima-Maricopa Indian Community; Ak-Chin Indian Community and the Tohono O'Odham Nation). The GRIC-THPO defers to the Tohono O'Odham Nation as lead in the consultation process.

Thank you for consulting with the GRIC-THPO. If you have any questions please do not hesitate to contact me or Archaeological Compliance Specialist Larry Benallie, Jr. at 520-562-7162.

Respectfully,

Barnaby V. Lewis
Tribal Historic Preservation Officer
Gila River Indian Community

2

2464	Comment Response
3	The Final EIS will be transmitted to the GRIC and the rest of the tribes upon publication.

2465

GOVERNOR
Susana Martinez

DIRECTOR AND SECRETARY
TO THE COMMISSION
James S. Lane, Jr.

Daniel E. Brooks, Deputy Director

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way
Santa Fe, NM 87507
Post Office Box 25112
Santa Fe, NM 87504
Phone: (505) 476-8008
Fax: (505) 476-8124

Visit our website at www.wildlife.state.nm.us
For information call: (888) 248-6866
To order free publications call: (800) 862-9310

STATE GAME COMMISSION

JIM McCLINTIC
Chairman
Albuquerque, NM

THOMAS "DICK" SALOPEK
Vice-Chairman
Las Cruces, NM

DR. TOM ARVAS
Albuquerque, NM

SCOTT BIDEGAIN
Tucumcari, NM

ROBERT ESPINOZA, SR.
Farmington, NM

PAUL M. KIENZLE III
Albuquerque, NM

BILL MONTOYA
Alto, NM

August 13, 2012

U.S. Bureau of Land Management
New Mexico State Office
Attn: SunZia Southwest Transmission Project
P.O. Box 27115
Santa Fe NM 87502-0115

SunZia Southwest Transmission Project Draft Environmental Impact Statement; NMDGF Project No.15118

Dear U.S Bureau of Land Management (BLM):

In response to the Federal Register Notice of Availability dated 25 May 2012, the New Mexico Department of Game and Fish (Department) has reviewed the above referenced document. The SunZia project is a proposed high-capacity electrical transmission project in New Mexico and Arizona. The proposed project would include the construction and operation of two adjacent 500-kV transmission lines, from the proposed SunZia East Substation in Lincoln County, NM, to the permitted Pinal Central substation in Pinal County, AZ. Our review pertains only to that portion of the project which would be located within the state of New Mexico. In addition to the SunZia East Substation, two new substations would be constructed and operated in New Mexico as part of the project: the proposed Midpoint Substation near Deming in Luna County, and the proposed Lordsburg Substation, near Lordsburg in Hidalgo County.

A BLM preferred alignment is presented in the DEIS, along with several alternatives which are still under consideration at this point in the decision process. The BLM preferred alignments in New Mexico are designated as Subroute 1A1 and Subroute 3A1. The Department has the following recommendations regarding selection of the SunZia right-of-way, moving from north to south.

[1]

1. Both potential locations where the line might cross the Rio Grande intersect with U.S. Fish and Wildlife Service designated critical habitat for the Southwestern Willow Flycatcher and the Rio Grande silvery minnow. The Rio Grande corridor is also an important migratory concentration flyway and nesting area for many species of migratory birds. Both crossings intersect the Middle Rio Grande Bird Habitat Conservation Area (BHCA) and the New Mexico Avian Protection (NMAP) Upper Rio Grande Corridor potential power line conflict area for multiple avian species groups. Riparian habitat is identified as a Key Habitat Type in the New Mexico Comprehensive Wildlife Conservation Plan. The Department agrees with the conclusion of the DEIS that the northern proposed crossing would be preferable, due to a narrower band of lesser quality riparian habitat at that point, such that surface disturbance within the riparian corridor could be more easily avoided.

2465	Comment Response
1	Comment noted. Impacts to ESA-listed and candidate species are also being addressed in detail through Section 7 consultation with the USFWS, currently underway. Although seasonal avoidance may not avoid all disturbances to Bighorn Sheep, NMGFD and BLM biologists will be consulted to determine dates with the highest biological sensitivity, and construction and non-emergency maintenance would occur outside those dates, as a stipulation in the final POD.

2465

1 The northern crossing is also more distant from Bosque del Apache National Wildlife Refuge. However, Link E200 of the northern crossing route passes directly over the core habitat area of the Ladron Mountains desert bighorn sheep herd. This area, which is mapped in the DEIS simply as part of a desert bighorn sheep corridor, is in fact where the great majority of the herd can be found most of the time. The location is occupied by sheep year-round, so that construction disturbance impacts could not be fully mitigated by seasonal activity restrictions. The Department thus has serious concerns with both Rio Grande crossing alternatives. Please see recommended mitigation measures below for both routes.

2 2. Eliminate consideration of Link A161b, which passes within 500 feet of Torreon Spring, the only known location of the Socorro springsnail. Because this location may support the only remaining population of this state and federally listed endangered species, it is highly vulnerable to extinction. Any increase in sediment movement by wind or water, or change in local hydrologic balance, could have an adverse effect.

3 3. Eliminate consideration of the Uvas Valley alternative (Links A361, A430 and A481). This route would bring the transmission line through an additional Sandhill Crane wintering area southwest of Hatch, and crosses a larger portion of the Luna County Grasslands BHCA. The Uvas Valley alternative also crosses the NMAP Nutt to Hatch area, where potential conflict has been identified for ducks. It would also fragment high quality black grama grasslands for which the BLM Uvas Valley Area of Critical Environmental Concern was designated, and it is longer than the preferred alignment.

4 4. The Department recommends selection of Subroute 3A over the BLM preferred alternative Subroute 3A1. Specifically we recommend the project cross the Arizona border using Link B160a rather than Link B150a. There are a number of reasons for this recommendation, as specified below.

   a. Subroute 3A is 56 miles (57%) shorter than Subroute 3A1, and parallels existing overhead transmission lines for over half its distance, as opposed to 26% of the distance for Subroute 3A1.
   b. Lordsburg Playa is designated a Key Ephemeral Aquatic Habitat in the CWCS. It is a unique natural ephemeral wetland habitat for large branchiopod crustaceans and migratory water birds. The CWCS identifies a Priority Conservation Action of no net loss of geographically isolated wetlands.
   c. Lordsburg Playa is the only known location in New Mexico for the Lynch Tadpole Shrimp and the Bowman's Fairy Shrimp. Both species are vulnerable to habitat loss, changes in hydroperiod, and water contamination.
   d. Link 150a crosses the NMAP Lordsburg Playa area, where potential conflict with overhead power lines has been identified for raptors.
   e. Link 150a will fragment the range of the New Mexico Peloncillo Mountains desert bighorn sheep herd. However, this is less of a concern than Link E200, referenced above, since the range of the Peloncillo herd is already crossed by Interstate Highway 10.

The DEIS identifies a number of mitigation measures which would be implemented on all or specific portions of the SunZia project. The Department has the following recommendations regarding implementation of mitigation measures.

2465	Comment Response
2	Link A161b is not a part of the BLM preferred alternative. If construction were to occur on Link A161b, Section 7 consultation would be reinitiated with USFWS. Additionally, geotechnical exploration would be required before construction. This would provide information on whether any effects to hydrology of Torreon Spring would occur. If any effects would be anticipated, engineering or siting modifications would be considered or required, to avoid potentially jeopardizing the survival of a listed species.
3	The Uvas Valley alternative is not a part of the BLM preferred alternative, in part to avoid impacts to habitat and the additional risk to Sandhill Cranes present in the valley.
4	The BLM preferred alternative has been modified to select Subroute 3A rather than Subroute 3A1, primarily to avoid impacts to Lordsburg Playa.

2465

SunZia Southwest Transmission Project Page 3- 4 August 13, 2012

1. The analysis of potential Sandhill Crane and other avian collisions at the San Antonio Rio Grande crossing presented in Appendix B2 of the DEIS has some significant deficiencies. Conclusions from this report regarding estimated impacts are repeated in Chapter 4, Environmental Impacts. Predicted crane mortality was estimated by comparison with two previous studies (Murphy et al 2009 and Brown and Drewien 1995). On pages 60 and 62 of Appendix B2, several reasons are presented why the estimates may be conservative. Although these are valid points, there are other equally valid reasons why the estimates might be too low. Most glaringly, only the October to December observation period was included in the calculations, although crane crossing rates were actually higher during the December to March observation period. The analysis should include both observation periods to obtain annual mortality estimates. A collision fatality rate of 79% was adopted from the Murphy et al (2009) study. However, Murphy et al (2009) believed most birds observed exhibiting hampered flight following a power line collision did not ultimately complete their migration and thus were removed from the breeding population. Under that assumption a fatality rate of 92% would be more accurate. Murphy et al (2009) reported approximately half of collisions occurred during evening hours and were only visible using night vision binoculars, while the other 50% of collisions occurred at night. Lack of observed collisions during daylight hours by the authors of Appendix 2B should not be used to draw conclusions concerning the rarity of collisions. Sandhill Cranes at the San Antonio Rio Grande crossing were identified as coming almost exclusively from the Rocky Mountain Population of the Greater Sandhill Crane subspecies. This is a population of conservation concern and estimates of potential impact should be made as accurately as possible given available information. The Appendix 2B analysis should be revised to reflect the above considerations. 5

2. Selective mitigation measure SE15 (Table 2-11) states that, to minimize collisions, bird diverters will be installed and increased visibility ground wires will used "in areas of heavy bird use (i.e. Rio Grande and other riparian corridors". The Department recommends bird diverters and alternative ground wire be installed, evaluated and maintained at the Rio Grande crossing, and also where the transmission lines intersect with NMAP potential conflict areas at Deming to Nutt (the preferred route), or Nutt to Hatch (the Uvas Valley alternative) and Lordsburg Playa. At all of these locations, and in the Chupadera Mesa and Luna County Grasslands BHCAs, a representative sampling program of carcass searches should be implemented, with statistically valid corrections for searcher detectability and scavenger loss biases. Due to the heightened sensitivity and importance of the Rio Grande migratory corridor, bird strike indicators should be used at the crossing to further refine impact assessment and potential adaptive management actions. 6

3. If Link E200 is constructed, do not locate any batch plants or lay-down yards within the core bighorn sheep occupancy area. New access roads in this area should be locked to limit access to project personnel. Do not allow construction activity during the bighorn sheep lambing season January 1 through April 30. For more information on bighorn sheep mitigation measures, please contact Eric Rominger, Bighorn Sheep Biologist at eric.rominger@state.nm.us or (505) 476-8045. 7

4. In standard mitigation measure ST7 (Table 2-10), the time that holes or trenches are left open should be minimized. Any holes or trenches left open overnight should be covered or provided with wildlife escape ramps. In the range and habitat of special status species of reptile, amphibian or small mammal, qualified monitors should inspect the holes or trenches daily and remove any trapped wildlife. Please see the Department's trenching guideline on the Habitat Handbook webpage at wildlife.state.nm.us/conservation/habitat_handbook/index.htm. 8

2465	Comment Response
5	The study conducted by the University of New Mexico presented in Appendix B2 represents the best available information regarding the collision risk to birds in the Project area. Appendix B2 presents a reasonable range of estimates of the collision risk to Sandhill Cranes based on field survey results. Regardless of the estimates, an Avian Protection Plan will be developed that will consider all applicable measures to reduce the risk of collision, and will stipulate monitoring and adaptive responses if implemented measures are not adequate.
6	The Avian Protection Plan will provide details on the selection and location of mitigation measures to reduce the bird collision risk. However, mitigation measures would be implemented only where anticipated to be effective and where birds typically at risk of collision occur in large numbers. The Chupadera Mesa and Luna County Grasslands Bird Habitat Conservation Areas are not expected to benefit substantially from the application of bird diverters, as few large, heavy-bodied birds are present.
7	Comment noted. Recommended mitigation measures would be employed to minimize impacts to Desert Bighorn Sheep.
8	Information on wildlife-safe construction practices would be provided during contractor awareness training, and biological monitors would ensure proper implementation of those practices.

2465

SunZia Southwest Transmission Project Page 4- 4 August 13, 2012

9 5. Page 4-58 states a Biological Protection Plan will be appended to the Plan of Development. This plan should include pre-construction right-of-way surveys for special status species. The Department is available to assist with design of pre-construction wildlife surveys once the final alignment has been selected. Burrowing Owl surveys and mitigation should be conducted in accordance with the Department's Habitat Handbook guideline. Note that routine small mammal surveys will not be sufficient to document presence or absence of the New Mexico meadow jumping mouse at the Rio Grande crossing locations. Please contact Jim Stuart, Non-game Mammalogist, at 505-476-8107 or james.stuart@state.nm.us for appropriate survey methodology.

Thank you for the opportunity to comment on this Draft EIS. If there are any questions, please contact Rachel Jankowitz, Mining Habitat Specialist at 505-476-8159 or rjankowitz@state.nm.us.

Sincerely,

Matthew Wunder, Chief
Conservation Services Division

cc: USFWS NMES Field Office
Pat Mathis, SW Area Habitat Specialist, NMDGF

2465	Comment Response
9	The Biological Protection Plan (POD Appendix B1) will include stipulations for preconstruction surveys, developed in consultation with all applicable agencies. Potential impacts to the New Mexico Meadow Jumping Mouse have been addressed through Section 7 consultation with the USFWS.

This page intentionally left blank.